VOLUME 16 • APRIL 1961 • NUMBER IV

# Journal of the AMERICAN MEDICAL WOMEN'S ASSOCIATION

APR 26 1961

LIBRARY
BOSTON UNIVERSITY
SCHOOL OF MEDICINE

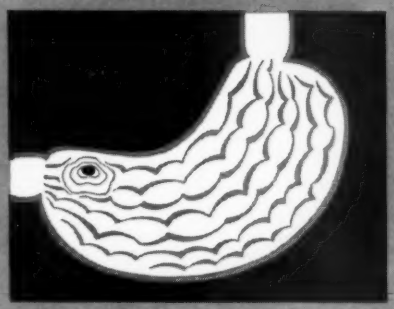
Library of Boston University
School of Medicine
80 E. Concord St.,
Boston, Mass.

Official Publication of

*Patients like the refreshing taste and dependability*

of

# Titralac®*



**for immediate and prolonged relief in peptic ulcer and hyperacidity**

**Preferred for**

- potency
- immediate relief (within seconds)
- lasting effect
- milk-like action
- fresh mint flavor
- non-chalky smoothness
- freedom from effect on intestinal function

## TITRALAC® TABLETS

May be chewed, dissolved in mouth, or swallowed with water. Each white, mint-flavored tablet contains glycine 0.18 Gm. and Ca carbonate 0.42 Gm. Bottles of 100 tablets.

## TITRALAC® LIQUID

Relief from a teaspoonful—not ounces or tablespoonfuls. Each 5cc. teaspoonful of white, mint-flavored liquid contains glycine 0.30 Gm. and Ca carbonate 0.70 Gm. Bottles of 8 fluid ounces.

*Patent No. 2429596

Riker Northridge, California

# ENOVID®

*restores functional balance...arrests bleeding*

The consistency with which Enovid restores the endocrine deficit of hypofunctioning ovaries is seldom more evident than in its prompt, positive control of dysfunctional uterine bleeding.

During adolescence, the menopause or whenever deficient or irregular elaboration of progesterone leads to menorrhagia or metrorrhagia the potent progestational activity of Enovid may be relied on to exert prompt and definite hemostatic action. Moreover, Enovid may be prescribed without the risk of inducing hirsutism or other virilizing effects.

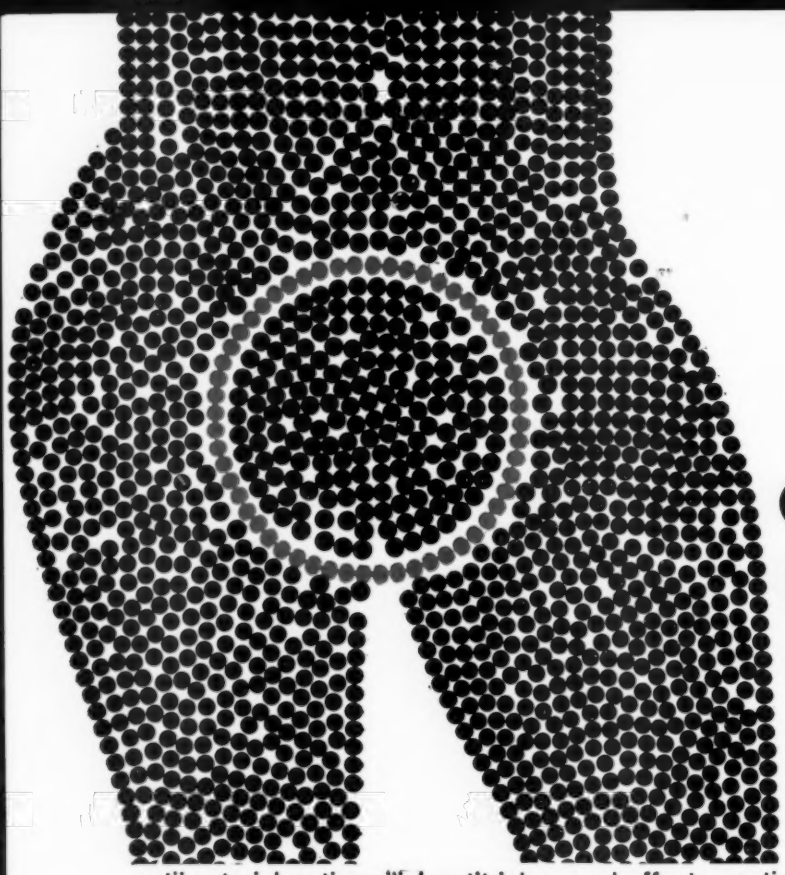
"Dysfunctional bleeding can, almost without exception, be controlled with hormonal therapy," Southam[1] asserts and continues, "norethynodrel (Enovid) . . . will produce hemostasis within 24 hours. . . ."

**Dosage and Supply:** *In menorrhagia,* 20 mg. daily for four or five days, reduced to 10 mg. through day 25. If the period is still menorrhagic, the same dosage schedule should be repeated; if normal, 10 mg. daily should be given from day 5 to day 25 through two or three succeeding cycles. *In metrorrhagia,* 10 or 20 mg. of Enovid daily until day 25 to control bleeding. The determined dosage should be continued daily from day 5 to day 25 for two or three consecutive cycles and then withdrawn to determine whether the menstrual cycle has returned to normal. Enovid (brand of norethynodrel with ethynylestradiol 3-methyl ether) is supplied in uncoated, scored, coral-colored tablets of 10 mg. each.

G. D. SEARLE & CO. • CHICAGO 80, ILLINOIS

*Research in the Service of Medicine*

1. Southam, A. L.: Dysfunctional Uterine Bleeding in Adolescence, Clin. Obst. & Gynec. 3:241 (March) 1960.



# CONSISTENT RESPONSE IN VAGINAL INFECTIONS

antibacterial, antimonilial, antitrichomonal effects—optimal dispersion, prolonged retention

85% success:[1,2] Triburon Chloride—the clinically proven microbicide—provides rapid symptomatic relief as well as control of trichomonal, monilial and non-specific vaginitis. In one study,[1] discharge, itching and burning disappeared in 67 of 73 women after only 3 or 4 applications; after two weeks, cultures were negative in 61 patients. Similar results were noted in another series of 55 women.[2]

now available in two forms

New TRIB VAGINAL SUPPOSITORIES provide the efficacy of Triburon Chloride in a water-soluble, self-emulsifying base that enhances dispersion and prolongs therapeutic effects, even in the presence of profuse discharge. TRIB VAGINAL SUPPOSITORIES are provided with reusable plastic applicators.

Proven TRIB VAGINAL CREAM—white, nonstaining, virtually non-irritating to the vaginal mucosa, with no hint of medicinal odor. Disposable applicators are supplied with the cream.

Indications: TRIB VAGINAL SUPPOSITORIES and TRIB VAGINAL CREAM for vulvitis and vaginitis due to Trichomonas vaginalis, Candida albicans, Hemophilus vaginalis as well as mixed infections; after cauterization, conization and irradiation, for surgical and postpartum treatment. Therapy may be continued during pregnancy and menstruation.

Supplied: TRIB VAGINAL SUPPOSITORIES—Boxes of 24, with reusable applicator. TRIB VAGINAL CREAM—3-ounce tubes with 18 disposable applicators. Consult literature for dosage requirements, available on request, before prescribing.

NEW Trib T.M.

contains Triburon Chloride 0.1%

**Vaginal Cream & Suppositories**

FORMERLY TRIBURON VAGINAL CREAM

decisive microbicidal therapy in a delicate matter

not an antibiotic • not a nitrofuran

ROCHE LABORATORIES

Division of Hoffmann-LaRoche Inc.

References: 1. N. Mulla and J. J. McDonough, Ann. New York Acad. Sc., 82: (Art. 1), 182, 1959. 2. L. E. Savel, D. B. Gershenfeld, J. Finkel and P. Drucker, Ibid., p. 186.

# Journal of the AMERICAN MEDICAL WOMEN'S ASSOCIATION

Volume 16 | April, 1961 | Number 4


*Special Number*

## WORLD HEALTH ORGANIZATION

SCIENTIFIC ARTICLES


Role of WHO in the Congo, *P. M. Kaul, M.B.B.S., D.P.H., M.R.C.P.*...287

Quarantine in the Jet Age, *Robert I. Hood, M.D., M.P.H.* .....290

Comparative Medical Studies of Chronic Degenerative Diseases as a Veterinary Public Health Activity, *Martin M. Kaplan, V.M.D., M.P.H.* .....296

The Treatment and Control of Dermatomycoses in the Light of Experiences Gained with Griseofulvin, *Ernest I. Grin, M.D.* .....300

The Work of WHO in 1960 .....304

A Regional Report of the Work of WHO .....306


SPECIAL FEATURES


Living Portraits .....308


REGULAR FEATURES


President's Message, *Claire F. Ryder, M.D., M.P.H.* .....307

Of Special Interest .....309

News of Women in Medicine .....310

Opportunities for Women in Medicine .....311

Book Notices .....313


*(Continued on page 257)*


***Neither the Editor nor the Publisher of the Journal of the American Medical Women's Association is responsible for any statements made or opinions expressed by any of its contributors.***



JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION is published monthly by the American Medical Women's Association, Inc., at 136 Fourth Ave. North, Nashville 3, Tenn. Entered as second class matter at the post office at Nashville, under the Act of Aug. 24, 1912. Acceptance for mailing at special rates of postage provided for in Section 1102, Act of Oct. 8, 1917, and authorized July 15, 1918. Copyright, 1961, by the American Medical Women's Association, Inc.

EDITORIAL AND ADVERTISING OFFICE, Journal of the American Medical Women's Association, 1790 Broadway, New York 19, N.Y. Telephone Judson 6-8683. Advertising: Joseph Bourgholtzer Associates, Inc., Box 281, Suffern, N.Y. Telephone Lafayette 9-3044 (Mahwah, N.J.)

## ...does she know that only **you** can help?

Many patients are unaware that their physician is the best source of contraceptive advice. Your prescription for Ortho-Gynol or Ortho-Creme with a diaphragm assures her the best available contraceptive protection. Accurate tests* for spermicidal potency, as well as years of clinical use, demonstrate that ORTHO contraceptive products are instantaneously spermicidal. The choice between Ortho-Gynol and Ortho-Creme is one of individual esthetic preference.

**Ortho-Gynol®** vaginal jelly

**Ortho®-Creme** vaginal cream

*The spermicidal potency of all ORTHO products is controlled by the **Titration Test** and the **Sander-Cramer Test**, which more closely duplicate vaginal conditions during coitus than other tests.

**WHENEVER A DIAPHRAGM IS INDICATED**

Ortho

# Table of Contents

(Continued from Page 255)

MISCELLANEOUS

Information for Contributors ..... 257
Editorial Board ..... 262
Board of Directors ..... 266
State Directors ..... 272
Branch Officers ..... 279
AWMA Membership Application ..... 279
AMWA Constitution ..... 280
"Membership is My Business" ..... 320
Junior Branch Officers ..... 328
Index to Advertisers ..... 330
Index to Products Advertised ..... 330

# Information for Contributors

*Contributions*—The JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION extends an invitation to the profession for original scientific articles, research, case reports, and review of medical literature; for articles of historical interest—especially those dealing with the status of women physicians; for biographies of women in medicine; and for any other material on subjects of special concern to women physicians. All manuscripts for publication, letters, and all communications relating to the editorial management of the JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION should be sent to the Editor at 1790 Broadway, New York City 19.

Articles are accepted for publication with the understanding that they are original contributions never previously published and are contributed solely to the JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION. All manuscripts are subject to editorial modification and upon acceptance become the property of the JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION. Material published in the JOURNAL is copyrighted and may not be reproduced without permission of the Editor. Neither the editors nor the publishers nor the American Medical Women's Association will accept responsibility for the statements made or opinions expressed by any contributor in any article or feature published in its columns.

*Manuscripts*—Manuscripts must be typewritten on one side of the paper only with double spacing and wide margins. The original and one carbon copy should be submitted; a second carbon copy should be retained by the author. The author's full name, academic or professional titles and affiliations, and complete address must accompany manuscript.

*Illustrations and Tables*—Illustrations must be in the form of glossy prints or drawings in black ink. On the back of each illustration the figure number, author's name, and indication of the top of the picture must be given. Legends for illustrations should be typewritten in a single list, with numbers corresponding to those on photographs and drawings. The JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION encourages the use of illustrations and will supply a reasonable number free of cost; special arrangements must be made with the Editor for excess illustrations or colored plates. The Editor is not responsible for the safe return of manuscripts and illustrations. All material supplied for illustrations, if not original, should be accompanied by references to the source and permission for reproduction from the owner of the copyright. Recognizable photographs of patients should carry with them written permission for publication.

Each table should be typewritten on a separate sheet, numbered consecutively, and have a title.

*Quotations*—Written permission must be secured from the author and publisher for quotation of more than 500 words from one publication. Acknowledgement should be made on the page on which the quotation begins. For quotes of 100 to 500 words, the source should be given in the list of references.

*References*—References should appear at the end of the manuscript and not in footnotes. They should conform to the style of the Index Medicus. This requires, in the order given, Name of Author, title of article, and name of periodical, with volume, inclusive pages, month (and day of month if the journal appears weekly), and year. References should be numbered consecutively throughout the paper, listed in order by number from the text, and are not to exceed 20 except in special cases.

## Erythropoietin—a significant discovery in clinical hematology

A wealth of evidence now confirms the fact that red blood cell production is controlled by the hormone erythropoietin.[1-3] Demonstrated in human plasma,[4] erythropoietin has been shown to produce reticulocytosis,[1,5-7] increase utilization of the $Fe^{59}$ isotope, and increase erythrocyte precursors in marrow cultures.[3,8]

# ERYTHROPOIETIN FOUND TO CONTROL RED CELL FORMATION

**erythropoietin levels—new criteria in diagnosis of anemia**—Increased erythropoietin blood levels can be demonstrated in severe anemia and following the start of accelerated formation.[9] Soon thereafter, the effect of the higher levels appears as an increased erythroid marrow activity.[10] Since the hemopoietic marrow is capable of producing more red cells than normally required, many anemias may be due to inadequate erythropoietin levels—a result of subnormal production or excessive excretion.

**how does erythropoietin affect iron metabolism?** Absorption and utilization of iron are dependent upon the rate of bone marrow erythropoiesis which, in turn, is dependent upon erythropoietin levels.[11,12] Thus, the demand for iron created by accelerated erythropoiesis is satisfied by both increased gastrointestinal absorption and mobilization of storage iron. Inadequate erythropoietin levels would seemingly account for the frequently disappointing results with the use of iron alone in many of the anemias.

**can medication increase erythropoietin levels?** Cobalt has been shown to be strikingly effective in increasing the production of erythropoietin.[13,14] Cobalt-enhanced erythropoietin accelerates red cell production and improves iron utilization with a subsequent increase in hemoglobin and erythrocytes. The new concepts of the cause, diagnosis, and management of anemia may now be applied clinically on the sound basis of extensive studies published on RONCOVITE®—MF, the therapeutic cobalt-iron hematinic.


(1) Gordon, A. S.: Physiol. Rev. **39**:1, 1959. (2) Erslev, A. J.: J. Lab. & Clin. Med. **50**:543, 1957. (3) Rosse, W. F., and Gurney, C. W.: J. Lab. & Clin. Med. **53**:446, 1959. (4) Gurney, C. W.; Goldwasser, E., and Pan, C.: J. Lab. & Clin. Med. **50**:534, 1957. (5) Rambach, W. A.; Alt, H. F., and Cooper, J. A. D.: Blood **12**:1101, 1957. (6) Gordon, A. S., **et al.**: Proc. Soc. Exp. Biol. & Med. **92**:598, 1956. (7) Erslev, A. J.: Blood **10**:954, 1955. (8) Goldwasser, E.; Jacobson, L. O.; Fried, W., and Plzak, L. F.: Blood **13**:55, 1958. (9) Stohlman, F., Jr., and Brecher, G.: Proc. Soc. Exp. Biol. & Med. **100**:40, 1959. (10) Kraus, L. M., and Kraus, A. P.: Fed. Proc. **18**:1051, 1959. (11) Bothwell, T. H.; Pirzio-Biroli, G., and Finch, C. A.: J. Lab. & Clin. Med. **51**:24, 1958. (12) Beutler, E., and Buttenwieser, E.: J. Lab. & Clin. Med. **55**:274, 1960. (13) Goldwasser, E.; Jacobson, L. O.; Fried, W., and Plzak, L.: Science **125**:1085, 1957. (14) Murdock, H. R., Jr., and Klotz, L. J.: J. Am. Pharm. A. (Scient. Ed.) **48**:143, 1959.


For a complete background file on erythropoietin, please write to the Medical Service Department of:

V-00361-R 104-R

LLOYD BROTHERS, INC.
Cincinnati, Ohio

# CREAMLETS*-new Creamalin® in chewing-gum form

New Creamlets afford convenient, fast relief to pregnant women with heartburn. Mint-flavored, pleasant-tasting, new Creamlets neutralize excess stomach acid and sweeten the breath.

New Creamlets contain specially processed aluminum hydroxide with magnesium hydroxide -- won't cause constipation, fluid retention or an increase in weight. Two Creamlets neutralize the same amount of acid as one new Creamalin antacid tablet.

Two Creamlets should be chewed for about five minutes after meals. They may be taken as often as necessary for gastric distress.

How Supplied: Boxes of 12 Creamlets.

Winthrop LABORATORIES
New York 18, N. Y.

*Creamlets, trademark Creamalin, trademark reg. U. S. Pat. Off.

(1488M)

# Can a plumber do a day's work on 1200 calories?

The answer, of course, is "not for long." For example, following diagnosis of diabetes, a 44-year-old plumber (5'8" and weighing 147 lb.) had been put on a 1200-calorie diet to control glycosuria. When referred six months later, he had not been spilling sugar, but had lost 25 pounds and developed progressive fatigability. Orinase, 0.5 Gm./day, was prescribed and his diet was increased to 2800 calories to meet metabolic demands (125 Gm. protein; 300 Gm. carbohydrate; 125 Gm. fat).

**Follow-up visits showed this progress:**

*3 mo.* Urine and blood sugar o.k.; weight gain: 28 lb. Can work normally, feels generally well.

*6 mo.* Weight constant, control constant, no complaints.

*12 mo.* Same.

*18 mo.* Same.

*24 mo.* Same.

Diet-controlled diabetics who are underweight, tire easily, or have increased nutritional needs may merely be "getting by" on dietotherapy alone. These patients – and others who experience transient weakness or listlessness–can often be returned to near-normal activity by giving Orinase together with a more adequate diet. Orinase control of diabetes is notably smooth and stable; patients report a greater sense of well-being, an improved mood and outlook.

Case data courtesy Henry Dolger, M.D.

**Indications and effects:** The clinical indication for Orinase is stable diabetes mellitus. Its use brings about the lowering of blood sugar; glycosuria diminishes, and such symptoms as pruritus, polyuria, and polyphagia disappear.

**Dosage:** There is no fixed regimen for initiating Orinase therapy. A simple and effective method is as follows: First day — 6 tablets; second day — 4 tablets; third day — 2 tablets. The daily dose is then adjusted — raised, lowered or maintained at the two-tablet level, whichever is necessary to maintain optimum control.

In patients being converted from insulin, insulin is gradually withdrawn in accordance with the response to Orinase observed over a trial period that may extend to three or four weeks. In candidates for combined Orinase-insulin therapy, an individualized schedule is usually obtainable during a trial course of two or more weeks.

**Contraindications and side effects:** Orinase is contraindicated in patients having juvenile or growth-onset, unstable or brittle types of diabetes mellitus; history of diabetic coma, fever, severe trauma or gangrene.

Side effects are mild, transient and limited to approximately 3% of patients. Hypoglycemia and toxic reactions are extremely rare. Hypoglycemia is most likely to occur during the period of transition from insulin to Orinase. Other untoward reactions to Orinase are usually not of a serious nature and consist principally of gastrointestinal disturbances, headache, and variable allergic skin manifestations. The gastrointestinal disturbances (nausea, epigastric fullness, heartburn) and headache appear to be related to the size of the dose, and they frequently disappear when dosage is reduced to maintenance levels or the total daily dose is administered in divided portions after meals. The allergic skin manifestations (pruritus, erythema, and urticarial, morbilliform, or maculopapular eruptions) are transient reactions, which frequently disappear with continued drug administration. However, if the skin reactions persist, Orinase should be discontinued.

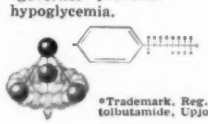
**Clinical toxicity:** Orinase appears to be remarkably free from gross clinical toxicity on the basis of experience accumulated during more than four years of clinical use. Crystalluria or other untoward effects on renal function have not been observed. Long-term studies of hepatic function in humans and experience in over 600,000 diabetics have shown Orinase to be remarkably free of hepatic toxicity. There has been reported only one case of cholestatic jaundice related to Orinase administration, which occurred in a patient with pre-existing liver disease and which rapidly reversed upon discontinuance of the drug.

Each tablet contains:
Tolbutamide ..... 0.5 Gm.
*Supplied:* In bottles of 50.

# Orinase*

**Upjohn**

An exclusive methyl "governor" prevents hypoglycemia.



The Upjohn Company
Kalamazoo
Michigan

*Trademark, Reg. U.S. Pat. Off. tolbutamide, Upjohn

# his first cereal...

## *like his first formula...needs your guidance*

**PABLUM**®

*mother looks to you*

Baby's first cereal can be his introduction to adult eating—an experience which can help set good eating habits for the rest of his life. Mother looks to you for help in making the right diet choices for her infant. Your advice is as important as it was when you prescribed his first formula.

*meets baby's needs at this critical point*

PABLUM brand cereals are formulated especially to fill the infant's needs for important minerals—especially iron—and for proteins, vitamins, carbohydrate, and calories. Available in five varieties—Rice, Mixed, Oatmeal, Barley, and High Protein—PABLUM cereals are highly useful in taste training.

*your assurance of nutritional excellence*

Mead Johnson applies the same rigorous controls to the manufacture of PABLUM cereals as it does to its other nutritional products and its pharmaceuticals. Your specification of PABLUM is assurance of sound nutrition in cereals for your patients' first few years.

*Specified by physicians for nearly 30 years.*

Edward Dalton Co.
A DIVISION OF
MEAD JOHNSON & COMPANY

*Quality products from nutritional research*

45361

JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION

official organ of the
American Medical Women's Association
1790 Broadway, New York City 19

CHAIRMAN OF PUBLICATIONS COMMITTEE: ELIZABETH S. WAUGH, M.D., 348 Green Lane, Philadelphia

EDITORS

HONORARY

JANET K. AITKEN, M.D. .....*London, England*
ESTHER P. LOVEJOY, M.D. .....*New York City*
CATHARINE MACFARLANE, M.D. .....*Philadelphia*

ADVISORY

JUDITH AHLEM, M.D. .....*Livermore, Calif.*
BEULAH CUSHMAN, M.D. .....*Chicago*
M. EUGENIA GEIB, M.D. .....*Madison, N.J.*
GRACE GOLDSMITH, M.D. .....*New Orleans*
ESTHER M. GREISHEIMER, M.D. .....*Philadelphia*
ELIZABETH KITTREDGE, M.D. .....*Washington, D.C.*
JESSIE A. MCGEACHY, M.D. .....*Saskatoon, Saskatchewan, Canada*
ESTHER C. MARTING, M.D. .....*Cincinnati*
ALMA D. MORANI, M.D. .....*Philadelphia*
BARBARA B. STIMSON, M.D. .....*Poughkeepsie, N.Y.*
HELEN M. WALLACE, M.D. .....*Washington, D.C.*
ELIZABETH S. WAUGH, M.D. .....*Philadelphia*
PRISCILLA WHITE, M.D. .....*Boston*

ASSISTANT

FRANCES L. BOGATKO, M.D. .....*New York City*
ANNELLA BROWN, M.D. .....*Boston*
HELEN GRADY COLE, M.D. .....*New York City*
KATE CONSTABLE, M.D. .....*New York City*
NILA KIRKPATRICK COVALT, M.D. .....*Winter Park, Fla.*
MARY M. CRAWFORD, M.D. .....*New York City*
RITA FINKLER, M.D. .....*Newark, N.J.*
OCCO E. GOODWIN, M.D. .....*San Francisco*
ELIZABETH SCHULZE HEALD, M.D. .....*Berkeley, Calif.*
MARGARET HOLDEN JONES, M.D. .....*Los Angeles*
MARILYN M. KRITCHMAN, M.D. .....*Kew Garden Hills, N.Y.*
TERESA MCGOVERN, M.D. .....*San Jose, Calif.*
MINNIE LEE MAFFETT, M.D. .....*Dallas, Texas*
ANNE S. MASTER, M.D. .....*Cleveland*
MARIE ORTMAYER, M.D. .....*Littleton, Colo.*
ELOISE PARSONS, M.D. .....*Chicago*

EDITOR
FRIEDA BAUMANN, M.D.

ASSOCIATE EDITOR
CAMILLE MERMOD, M.D.

ACTING MANAGING EDITOR
MARCIA KERWIT

BUSINESS MANAGER
GERTRUDE F. CONROY

# CYCLEX®

HYDRODIURIL® WITH MEPROBAMATE
HYDROCHLOROTHIAZIDE

## to relieve the symptoms of premenstrual tension

for EDEMA... CYCLEX provides the prompt diuresis of HYDRODIURIL for rapid reduction of weight gain, breast fullness, abdominal congestion

for MOOD-CHANGES... CYCLEX supplies the effective relief of meprobamate for nervousness, irritability, tension, nausea, malaise, insomnia

for GI DISTRESS... CYCLEX affords quick-acting relief of nausea and bloating associated with premenstrual tension

SUPPLIED: Tablets, bottles of 100. Each tablet contains 25 mg. of HYDRODIURIL (hydrochlorothiazide) and 200 mg. of meprobamate.

DOSAGE: Usual adult dosage is one tablet once or twice a day, beginning on the first morning of symptoms and continuing until the onset of menses. CYCLEX may be continued through the menstrual period.

Before prescribing or administering CYCLEX, the physician should consult detailed information on use accompanying package or available on request.

CYCLEX and HYDRODIURIL are trademarks of Merck & Co., INC.

MSD

MERCK SHARP & DOHME
Division of Merck & Co., INC.
West Point, Pa.

# in any emetic situation

in morning sickness \ in digitalis intoxication

in postoperative nausea \ in diabetic acidosis

in psychogenic vomiting \ in motion sickness

in gastrointestinal disturbances \ in hepatitis

in genitourinary infections \ in labyrinthitis

in alcoholic intoxication \ in radiation sickness

in myocardial infarction \ in drug reactions

in acute viral infections \ in duodenal ulcer

in Meniere's syndrome \ in uremia \ in toxicosis

in gastroenteritis \ in enterocolitis \ in migraine

in neoplasms \ in biliary colic \ in cholecystitis

and even in children and in elderly patients

# Tigan

## NEW 250 mg CAPSULES

## is safe and sound

Against nausea there's nothing more effective or, for that matter, quite so safe as Tigan. Tigan has *one* demonstrable pharmacologic property: it blocks emetic impulses, primarily by direct action at the chemoreceptor trigger zone (CTZ) of the medulla. Tigan thus *stops* active vomiting as effectively as it prevents nausea and emesis. There are no special precautions, no known contraindications for Tigan. A single chemical compound, Tigan is not a converted antihistamine, tranquilizer or sedative—and may be used even where older antiemetics are contraindicated.

USUAL DOSAGE

ADULTS—*Capsules:* The usual dosage is 100 mg to 250 mg, three or four times daily. In nausea and vomiting of pregnancy, one 250-mg capsule at bedtime and one immediately upon awakening. In severe cases this dose may be repeated up to a total of three or four capsules daily.

*Intramuscular Injection:* 200 mg (2 cc), one to four times daily.

*Suppositories:* 200 mg (one suppository), three or four times daily.

CHILDREN—*Capsules:* For children 30 to 90 pounds, one 100-mg capsule, three or four times daily.

*Intramuscular Injection:* Under 30 pounds, 50 mg (½ cc); 30 to 60 pounds, 100 mg (1 cc); 60 to 90 pounds, 150 mg (1½ cc)—one to four times daily.

*Suppositories:* Under 30 pounds, 100 mg (½ suppository); 30 to 90 pounds, 100 mg to 200 mg (½ to 1 suppository)—three to four times daily.

NOTE: There are no known contraindications or special precautions to be taken with Tigan therapy. Because Tigan has no sedative or tranquilizer properties, it is *not* necessary for patients to refrain from operating an automobile or other mechanical equipment while on Tigan medication.

*Packages:* Capsules, blue, 250 mg—bottles of 50. Also available as: 100 mg capsules, blue and white. Ampuls, 2 cc (100 mg/cc). Vials, 20 cc (100 mg/cc). Suppositories, 200 mg.

TIGAN® Hydrochloride—4-(2-dimethylaminoethoxy)-N-(3,4,5-trimethoxybenzoyl) benzylamine hydrochloride

ROCHE
LABORATORIES
Division of Hoffmann-La Roche Inc.

# American Medical Women's Association, Inc.

## 1960-1961 BOARD OF DIRECTORS

### OFFICERS

PRESIDENT: Claire F. Ryder, M.D., M.P.H., Division of Chronic Diseases, U.S.P.H.S., Washington 25, D.C.

PRESIDENT-ELECT
Edith Petrie Brown, M.D.
441 Turney Rd., Bedford, Ohio

RETIRING PRESIDENT
Jessie Laird Brodie, M.D.
732 N.W. 19th Ave., Portland 9, Ore.

FIRST VICE-PRESIDENT
Rosa Lee Nemir, M.D.
7 Monroe Place, Brooklyn, N.Y.

SECOND VICE-PRESIDENT
Bernice C. Sachs, M.D.
200 15th Ave. N., Seattle 2

RECORDING SECRETARY
Mary K. Helz, M.D.
1864 Park Forest Ave., R.D., State College, Pa.

CORRESPONDING SECRETARY
Eva F. Dodge, M.D.
University of Arkansas Medical Center, Little Rock

TREASURER
Margaret J. Schneider, M.D.
Doctors' Building, Cincinnati 2

ASSISTANT TREASURER
Josephine E. Renshaw, M.D.
1150 Connecticut Ave. N.W., Washington 6, D.C.

### PAST-PRESIDENTS

Esther C. Marting, M.D. (1955-1956)
Camille Mermod, M.D. (1956-1957)
Elizabeth S. Kahler, M.D. (1957-1958)
Katharine W. Wright, M.D. (1958-1959)

### CHAIRMEN OF STANDING COMMITTEES

ARCHIVES
Nelle S. Noble, M.D.: Cochairman
1060 25th St., Des Moines, Iowa
Irene Koeneke, M.D.: Cochairman
Halstead, Kan.

CONSTITUTION AND BY-LAWS
Elizabeth S. Kahler, M.D.
2600 36th St., N.W., Washington 7, D.C.

CREDENTIALS
Margaret J. Schneider, M.D.
Doctors' Building, Cincinnati 2

FINANCE
Camille Mermod, M.D.
294 S. Centre St., Orange, N.J.

INTERNATIONAL RELATIONS
Judith Ahlem, M.D.
954 S. L St., Livermore, Calif.

LECTURESHIP
Katherine W. Wright, M.D.
734 Noyes St., Evanston, Ill.

LEGISLATIVE
Mary Mitchell Henry, M.D.
118 Highway Drive, San Antonio, Texas

LIAISON
American Women's Hospitals Service, Inc.
Jessie Laird Brodie, M.D.
732 N.W. 19th Ave., Portland, Ore.

Woman's Medical College of Pennsylvania
Catharine Macfarlane, M.D.
136 S. 16th St., Philadelphia

MEDICAL EDUCATION AND PRACTICE
Mary K. Helz, M.D.
1864 Park Forest Ave., R.D., State College, Pa.

MEMBERSHIP
Bernice C. Sachs, M.D.
200 15th Ave. N., Seattle 2

PUBLICATIONS
Elizabeth S. Waugh, M.D.
348 Green Lane, Philadelphia

PUBLIC HEALTH
Helen Wallace, M.D.
Children's Bureau, HEW, Washington, D.C.

PUBLICITY AND PUBLIC RELATIONS
Kathleen E. Shanahan, M.D.
411 Churchill Rd., West Englewood, N.J.

RESOLUTIONS
Eva F. Dodge, M.D.
2124 W. 11th St., Little Rock, Ark.

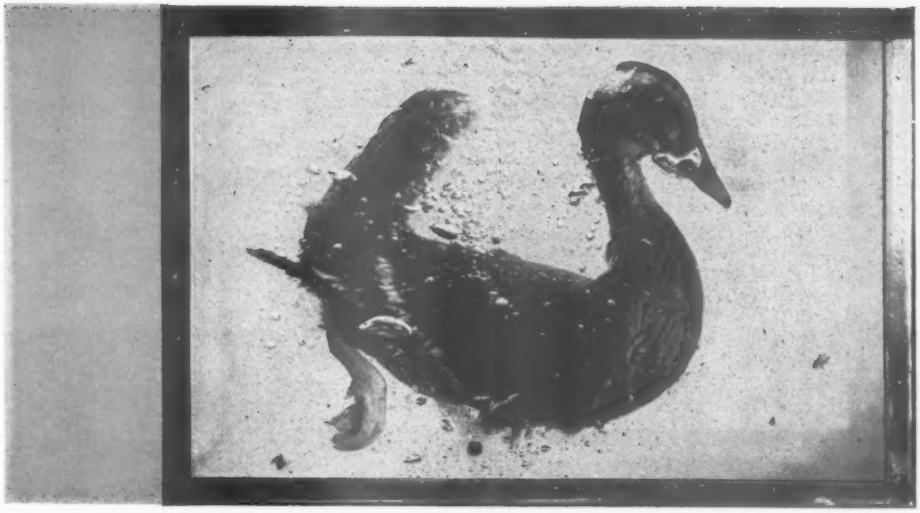
STUDENT LOANS, FELLOWSHIPS, AND GRANTS
Rosa Lee Nemir, M.D.
7 Monroe Place, Brooklyn 1, N.Y.

---

DIRECTOR OF JUNIOR MEMBERSHIP
Esther C. Marting, M.D.
2314 Auburn Ave., Cincinnati

EDITOR OF THE JOURNAL
Frieda Baumann, M.D.
1790 Broadway, New York 19

*(Continued on Page 272)*



## The principle that makes a duck sink... produces soft, normal stools in functional constipation

# SURFAK®

PROPHYLACTIC TO PREVENT HARD DRY STOOLS SURFAK

Water doesn't roll off this duck's back . . . because the water is Surfak-treated. Surfak decreases interfacial tension between water and oil . . . penetrates the natural oils in the feathers, permits water absorption, adding weight so that the duck sinks.

Similarly, in functional constipation, Surfak quickly permeates the heterogeneous fecal mass. The superior surfactant action of calcium bis-(dioctyl sulfosuccinate) reduces the interfacial tension between the aqueous and lipoid phases of the intestinal content to minimal values. The result is soft homogeneous feces which are easily moved to evacuation, naturally.

*Adults:* One 240 mg. Surfak capsule daily.

*Children* (and adults with minimal needs): One to three 50 mg. Surfak capsules daily.

240 mg. Surfak capsules in bottles of 15 and 100. 50 mg. Surfak capsules in bottles of 30 and 100.

LLOYD BROTHERS, INC.
CINCINNATI 3, OHIO

**Everyday practice report:**

Following initial clinical investigational work, Forhistal was sent to physicians throughout the country for evaluation as an antiallergic and antipruritic agent in everyday practice. Results in 6181 cases have now been analyzed. In 3419 cases in which a comparison was made, Forhistal was judged better than previous therapy in 7 out of 10 patients. Information about the investigational work done previously is being mailed to you separately and is also available on request.

SUPPLIED: *Tablets*, 1 mg. (pale orange, scored). *Lontabs*, 2.5 mg. (orange). *Syrup* (pink), containing 1 mg. Forhistal maleate per 5-ml. teaspoon. *Pediatric Drops* (pink), containing 0.5 mg. Forhistal maleate per 0.6 ml.

For complete information about Forhistal (including dosage, cautions, and side effects), see Physicians' Desk Reference or write CIBA, Summit, N. J.

FORHISTAL® maleate (dimethindene maleate CIBA)
LONTABS® (long-acting tablets CIBA)

# new Forhistal® rated better than previous therapy in 7 cases out of 10

CIBA
SUMMIT, NEW JERSEY

2/3910HK-1

A CROWNING GLORY CAN BE A CROWN OF THORNS . . . That hairdo would stop traffic on a Los Angeles freeway! But it won't stop dandruff—as the lady soon will learn. She'll still be tormented by an itching, burning scalp. (Can't even scratch without messing up her beehive.) Small problem? Perhaps. But to the person who has tried everything—who has scrubbed and scratched, and worried and winced, month after fruitless month—a prescription for Selsun can be a real blessing. And that holds true for 95% of your dandruff patients who try it.

SELSUN®
AN ETHICAL ANSWER TO A MEDICAL PROBLEM
SUSPENSION
SELSUN—
*Selenium Sulfide,*
*Abbott.*
ABBOTT

**2 Iberol Filmtabs a day supply:**
**The Right Amount of Iron**

Ferrous Sulfate, U.S.P..... 1.05 Gm.
(Elemental Iron—210 mg.)

**Plus Therapeutic B-Complex**

Cobalamin (Vitamin $B_{12}$).... 25 mcg.
Liver Fraction 2, N. F..... 200 mg.
Thiamine Mononitrate..... 6 mg.
Riboflavin..... 6 mg.
Nicotinamide..... 30 mg.
Pyridoxine Hydrochloride..... 3 mg.
Calcium Pantothenate..... 6 mg.

**Plus Vitamin C**

Ascorbic Acid..... 150 mg.

Filmtab—Film-sealed tablets, Abbott.

Note: Iberol®-F with 1 mg. of Folic Acid in each Filmtab is available on your prescription.

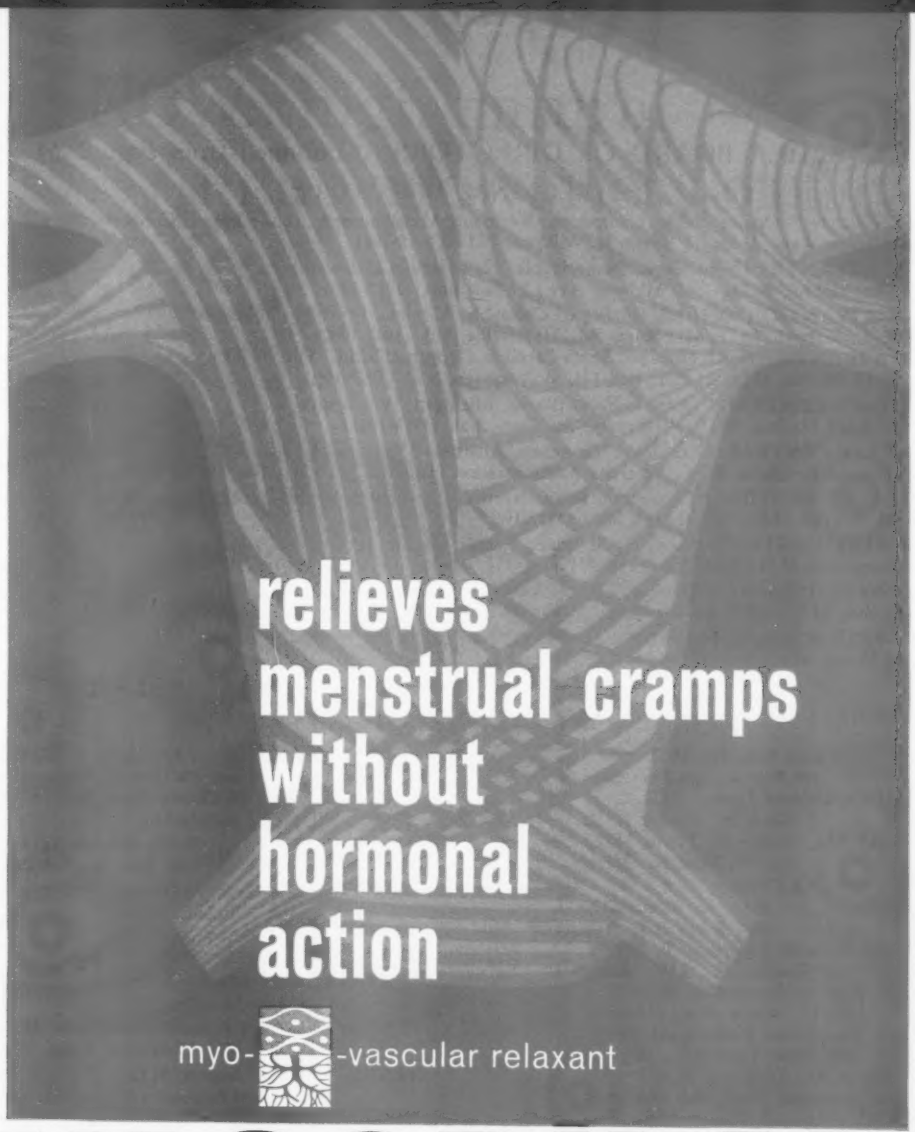
©1961, ABBOTT LABORATORIES 103016

ABBOTT

# Anemia in convalescence

another indication for Filmtab® IBEROL®
(Vitamin $B_{12}$, Iron, with other Vitamins, Abbott)

potent antianemia therapy plus therapeutic B-complex




# VASODILAN®

Isoxsuprine hydrochloride, Mead Johnson

**relieves uterine spasm and hypermotility by *direct* relaxant action on uterine muscle***
**proved effective clinically with a low incidence of side effects***

**dosage:** For menstrual cramps, give 10 or 20 mg. (1 or 2 tablets) three or four times daily 24 to 72 hours prior to expected onset of menstruation. Continue until pain has been averted.

**side effects:** Few side effects occur when given in recommended oral doses. Occasional palpitation and dizziness can usually be controlled by dosage adjustment. Single intramuscular doses of 10 mg. or more may result in hypotension or tachycardia.

**contraindications:** There are no known contraindications to oral administration of VASODILAN in recommended doses.

**cautions:** VASODILAN should not be given immediately postpartum or in the presence of arterial bleeding. Parenteral administration is not recommended in the presence of hypotension or tachycardia. Intravenous administration is *not* recommended because of the increased likelihood of side effects.

**supplied:** 10 mg. tablets, bottles of 100; 2 cc. ampuls (5 mg./cc.) for *intramuscular* use, boxes of 6.

*Voulgaris, D. M.: Obst. & Gynec. *15*:220-222 (Feb.) 1960.

11SRG1

Mead Johnson
Laboratories

*Symbol of service in medicine*

## AMWA BOARD OF DIRECTORS–(Continued from Page 266)

### REGIONAL DIRECTORS

NEW ENGLAND (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
Augusta Foster Law, M.D., 16 South St., Milford, N.H. (1958-1961)

NORTH ATLANTIC (New York, Pennsylvania, New Jersey, Delaware)
Alma Dea Morani, M.D., 3665 Midvale Ave., Philadelphia (1957-1960)

MIDDLE ATLANTIC (Maryland, District of Columbia, Virginia, West Virginia, Foreign)
Mary K. L. Sartwell, M.D., 6811 Riggs Rd., Hyattsville, Md. (1957-1960)

SOUTH ATLANTIC (North Carolina, South Carolina, Georgia, Florida, Puerto Rico)
Mary B. H. Michal, M.D., M.P.H., Box 176, Waynesville, N.C. (1957-1960)

NORTHEAST CENTRAL (Ohio, Indiana, Illinois, Michigan, Wisconsin)
Dorothy Ruth Darling, M.D., 807 Fayette St., Gary, Ind. (1958-1961)

SOUTHEAST CENTRAL (Kentucky, Tennessee, Alabama, Mississippi, Louisiana)
Helen Cannon-Bernfield, M.D., Veterans Administration Hospital, Jackson, Miss. (1957-1960)

NORTHWEST CENTRAL (Minnesota, Iowa, North Dakota, South Dakota, Nebraska)
Grace M. Sawyer, M.D., Woodward, Iowa (1957-1960)

SOUTHWEST CENTRAL (Missouri, Arkansas, Kansas, Oklahoma, Texas)
Ruth Hartgraves, M.D., 1208 The Medical Towers, Houston 25, Texas (1958-1961)

NORTHWEST (Montana, Wyoming, Idaho, Washington, Oregon, Alaska)
Irene Grieve, M.D., 525 Fernwell Bldg., Spokane, Wash. (1959-1962)

SOUTHWEST (Colorado, New Mexico, Utah, Arizona, California, Nevada, Hawaii)
Gertrud Weiss, M.D., 4200 E. Ninth Ave., Denver 20, (1959-1962)

## STATE DIRECTORS

CALIFORNIA: Jane Schaefer, M.D.
490 Post St., San Francisco

COLORADO: Mildred Doster, M.D.
727 Birch St., Denver 20

CONNECTICUT: Sophie C. Trent, M.D.
236 W. Main St., Meriden

DISTRICT OF COLUMBIA:
Mary K. Sartwell, M.D.
6811 Riggs Rd., Hyattsville, Md.

GEORGIA: Dorothy E. Brinsfield, M.D.
1123 Gordon St., S.W., Atlanta 10

ILLINOIS: Rose V. Menendian, M.D.
2400 W. Morse Ave., Chicago

INDIANA: Clementine Frankowski, M.D.
1907 New York Ave., Whiting

IOWA: Evelyn M. Anderson, M.D.
816 Equitable Bldg., Des Moines

KENTUCKY: Helen B. Fraser, M.D.
620 S. Third St., Louisville 2

LOUISIANA: Mignon W. Jumel, M.D.
3619 Prytania St., New Orleans

MARYLAND: Mary Matthews, M.D.
8106 Harford Rd., Baltimore 14

MISSISSIPPI: Helen Siegrist, M.D.
Veterans Administration Center, Jackson

NEW HAMPSHIRE AND VERMONT:
Augusta Foster Law, M.D.
16 South St., Milford, N.H.

NEW MEXICO: Evelyn F. Frisbie, M.D., and
Lucy McMurray, M.D.
106 Girard Blvd., S.E., Albuquerque

NORTHERN CALIFORNIA:
Phillis Bourne, M.D.
3505 20th St., San Francisco 10

OHIO: Marjorie Grad, M.D., and
Jeanne E. Nitchals, M.D.
1506 Chase Ave., and
2205 Beechmont Ave., Cincinnati

OREGON: Mary Jane Fowler, M.D.
815 E. Main St., Medford

PENNSYLVANIA: Rebecca M. Rhoads, M.D.
416 Chichester Lane, Wynnewood

TEXAS: Ione Huntington, M.D.
519 Medical Professional Bldg., San Antonio 5

VIRGINIA: Lillian Lindemann, M.D.
4708 Carey St., Richmond

WASHINGTON: Bernice Sachs, M.D.
200 15th Ave., Seattle 2

WESTERN MASSACHUSETTS:
Mary C. Shannon, M.D.
334 Highland St., Worcester

WEST VIRGINIA: Beatrice H. Kuhn, M.D.
1109 Quarrier St., Charleston

WISCONSIN: Elsine Moore Thomas, M.D.
200 E. Wells St., Milwaukee

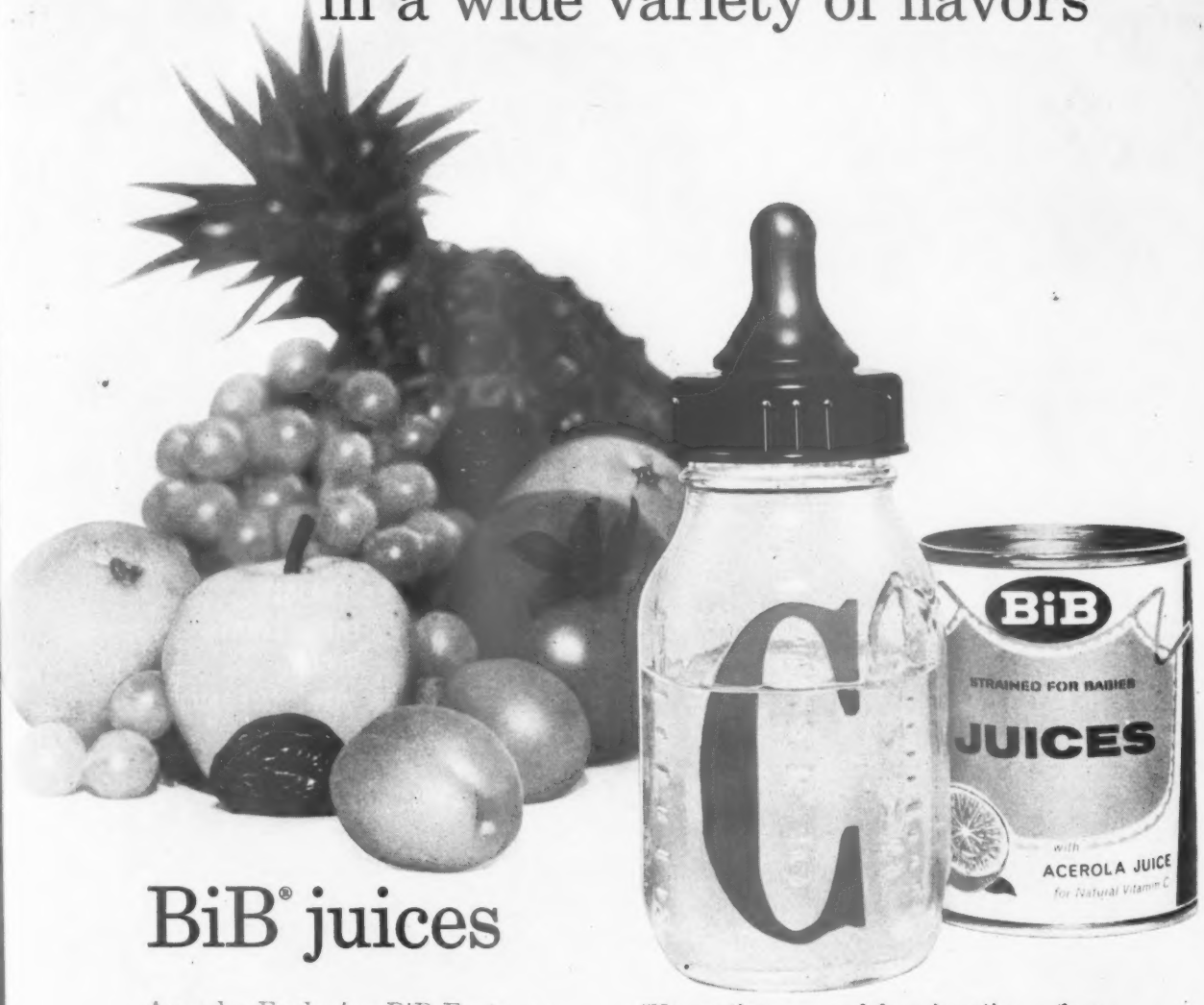
## SPECIAL COMMITTEES

LIBRARY FUND STUDY
Rose V. Menendian, M.D.
Evangeline E. Stenhouse, M.D.
Katharine W. Wright, M.D.

NGO OBSERVER TO UN OFFICE OF PUBLIC INFORMATION
Kathleen Shanahan, M.D.
411 Churchill Rd., West Englewood, N.J.

SCIENTIFIC ADVISORY COMMITTEE ON TRAFFIC ACCIDENT PREVENTION
Camille Mermod, M.D.
294 S. Centre St., Orange, N.J.

# NOW...high natural vitamin C in a wide variety of flavors




# BiB® juices

## Acerola–Exclusive BiB Feature:

**All BiB juices—Orange, Apple, White Grape, Pineapple, Prune-Orange, Orange-Apricot, and Tomato—are standardized to protective vitamin C levels with Acerola, the richest known *natural* source of vitamin C.[1,2] Each ounce of *all* BiB juices—citrus or non-citrus—provides more than the minimum daily requirement of vitamin C for infants.**

## BiB Orange Juice–Hypoallergenic

**Hypoallergenicity and improved tolerance are achieved through special processing which reduces the seed protein and peel oil content to negligible quantities. In a clinical study with Acerola, "No reactions occurred from ingestion or from skin and intradermal tests with Acerola juice."[2]**

## A Wide Variety at an Early Age

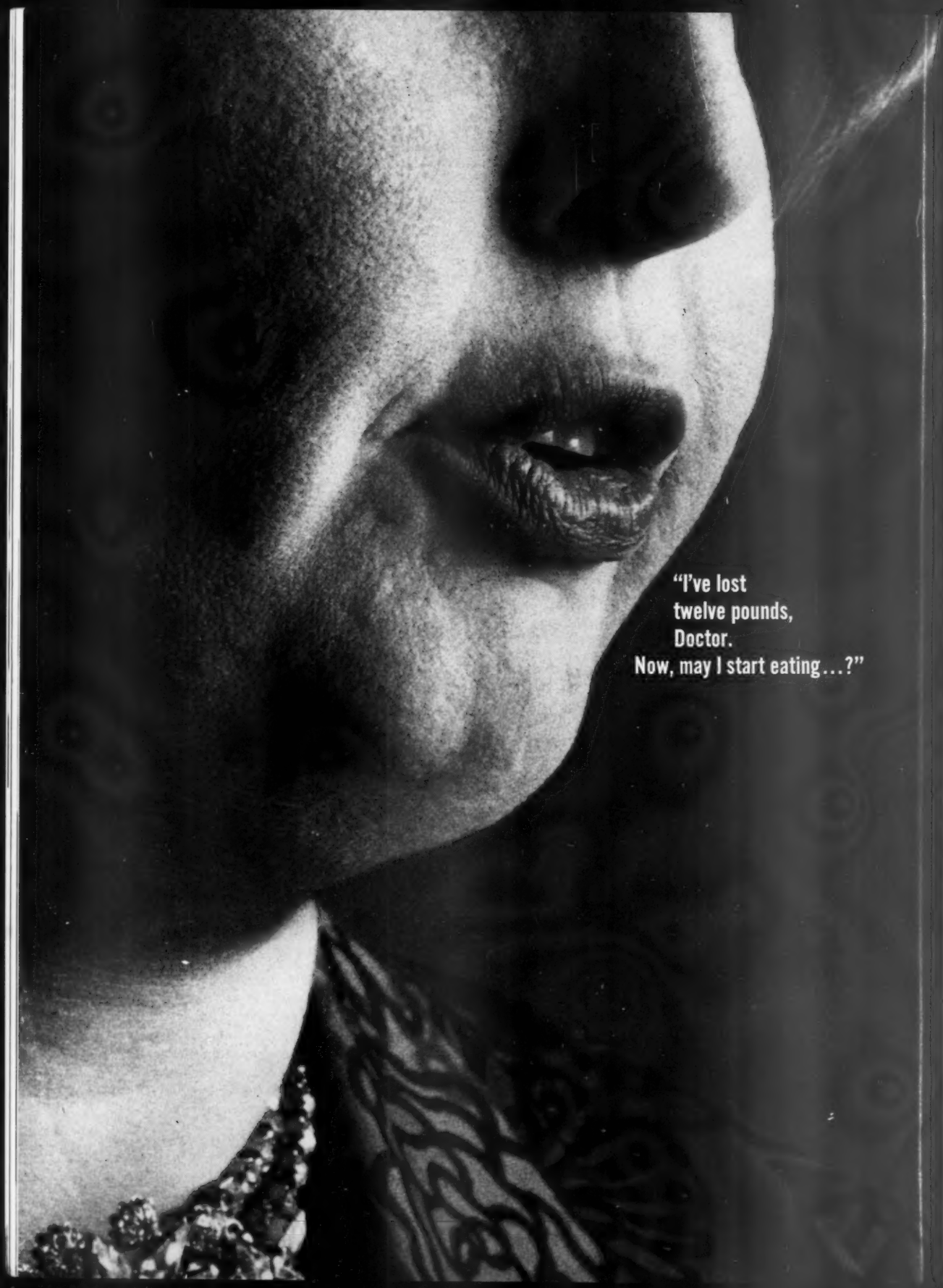
**BiB juices permit early introduction of a wide variety of flavors—valuable in taste-training the infant. Special process assures free flow through bottle nipple; ideal for spoon or cup feeding, too. BiB juices require no reconstitution, no heating, no defrosting. All mother does is open the can of BiB juice and it's ready for feeding.**

**References: (1) Asenjo, C. F., and Freire de Guzman, A. R.: Science *103*:219 (Feb. 22) 1946. (2) Clein, N. W.: J. Pediat. *48*:140-145 (Feb.) 1956.**

Edward Dalton Co.
A DIVISION OF
MEAD JOHNSON & COMPANY

*Quality products from nutritional research*

45461


"I've lost
twelve pounds,
Doctor.
Now, may I start eating...?"

# "crash diets" do not solve the basic patient problem: habitual overeating

In the treatment of chronic obesity, "fad diets" are not the answer. Your patients may suffer adverse somatic as well as psychic effects from alternating weight loss and gain.
At the conclusion of a "crash-diet" program, the patient often falls back into familiar habits of overeating. The problem, therefore, remains the same.

The process of eliminating pounds in the chronically obese should be gradual. To accomplish this, obviously, new patterns of eating must be established.

BAMADEX tablets help the patient be satisfied on a diet which will cause him to lose weight. BAMADEX tablets combine two specific agents to overcome the habitual overeating in the chronically obese... the outstanding appetite suppressant, d-amphetamine, balanced with the tranquilizer, meprobamate. BAMADEX tablets help the recalcitrant patient keep within his prescribed caloric limits. It does this by curbing between-meal hunger, fatigue, nervousness, insomnia, and dizziness, which may lead to failure in diet reduction.

**BAMADEX®** *helps them to help themselves to less!*

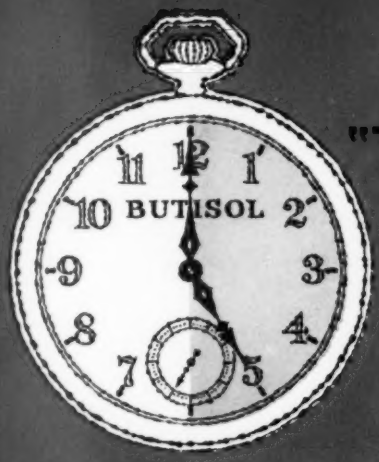
meprobamate with d-amphetamine sulfate Lederle **TABLETS**

**BAMADEX Tablets:** *Each coated tablet (pink) contains: d-amphetamine sulfate, 5 mg.; meprobamate, 400 mg.* **dosage:** *1 tablet one-half to one hour before each meal. Higher dosage may be required in certain cases.* **precautions:** *Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or who are severely hypertensive.* **supplied:** *Bottles of 100 and 1,000.*

*Request complete information on indications, dosage, precautions and contraindications from your Lederle representative or write to Medical Advisory Department.*

Lederle

LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY • Pearl River, New York




# "TIME-MATCHED" COMPONENTS

for smoother management of smooth muscle spasm

# BUTIBEL®

TIME-MATCHED **ANTISPASMODIC** / **SEDATIVE** COMBINATION

BUTIBEL combines two essentially synchronous components—belladonna extract and BUTISOL®. One or two tablets one-half hour before meals and at bedtime assures smooth, uninterrupted control of gastrointestinal spasm through the day and during the night.

Similar preparations containing phenobarbital, which has three times the duration of action of belladonna, must either build up a cumulative sedative burden or leave patients for long hours without effective antispasmodic protection.

By contrast, BUTIBEL, with its time-matched components, gives full, continuous antispasmodic *and* sedative action for smooth control of functional gastrointestinal disorders.

**BUTIBEL:** *belladonna extract...15 mg. and* BUTISOL Sodium®*...15 mg.*
*butabarbital sodium*

**BUTIBEL** Tablets • Elixir • Prestabs® Butibel R-A (Repeat Action Tablets)

McNEIL

**McNEIL LABORATORIES, INC.,** PHILADELPHIA 32, PA.

# symptoms gone... feels like a new woman

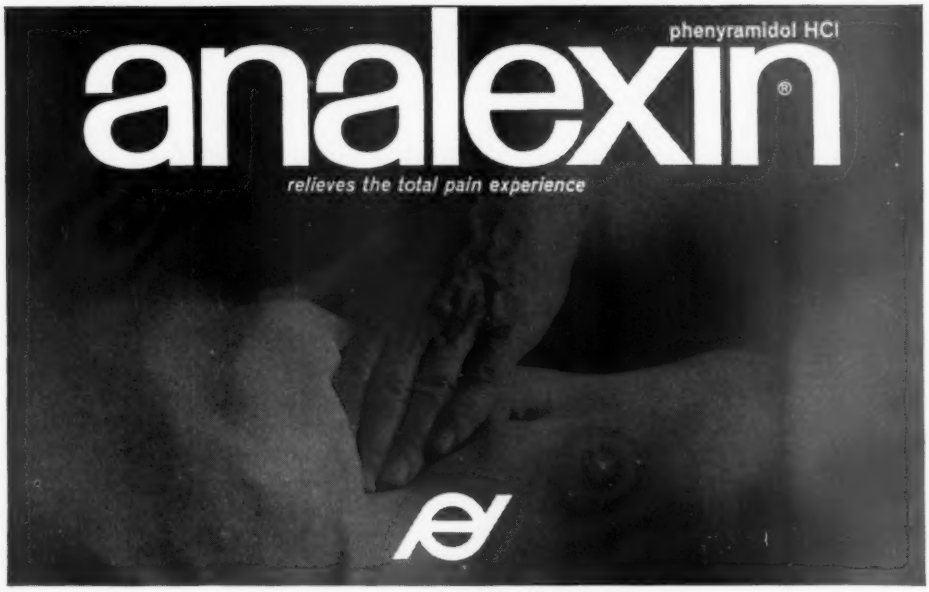
*basic therapy in vaginitis eliminates symptoms · itching · burning · leukorrhea · malodor · destroys pathogens · Trichomonas vaginalis · Candida (Monilia) albicans · nonspecific organisms...alone or in combination · has these advantages · high rates of clinical and cultural cures · effectiveness even in menstrual blood and vaginal debris · safe and nonirritating to delicate inflamed tissue · esthetically acceptable with no disagreeable staining*

**TRICOFURON®**

(nifuroxime and furazolidone) Improved

Powder / Suppositories

® EATON LABORATORIES
Division of The Norwich Pharmacal Company
NORWICH, NEW YORK




In relief of pain associated with dysmenorrhea, premenstrual tension headache and postpartum pain, "*an effective, convenient agent . . . not limited by the precautions necessary when administering narcotics.*"[1]

**Severe Dysmenorrhea**[1]
75 patients placed on Analexin 200 mg. tablets.
*5 demonstrated pelvic pathology

**Premenstrual Tension Headache**[1]
50 patients placed on Analexin 200 mg. tablets.

**Postpartum Pain**[1]
100 patients placed on a combination of Analexin, 200 mg., and aspirin, 325 mg.
100 patients placed on codeine sulfate, 32.5 mg., and aspirin, 650 mg.

**Analexin®** *for relief of pain.* Each tablet contains phenyramidol HCl, 200 mg.
DOSAGE: Generally, 1 or 2 tablets every 4 hours. For *Dysmenorrhea*—2 tablets at onset of pain, then 1 tablet every 2 to 4 hours.

**Analexin-AF®** *for relief of postpartum pain or pain conditions complicated by inflammation and/or fever.*
Each tablet contains phenyramidol HCl, 100 mg.; and aluminum aspirin, 300 mg.
DOSAGE: 2 tablets every 4 hours or as required.

**IRWIN, NEISLER & CO.** DECATUR, ILLINOIS

1 Wainer, A. S.: Clin. Med. 7:2331, 1960.

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1960-1961

### ONE, WASHINGTON, D.C.

*President:* Charlotte Patricia Donlan, M.D., 10000 Woodhill Rd., Bethesda 14, Md.
*Secretary:* Gloria Grimes Cochran, M.D., 3706 Curtis Ct., Chevy Chase 15, Md.
*Membership Chairman:* Maxine Schurter, M.D., 2700 Q Street, N.W., Washington, D.C.
Meetings: First Tuesday, October through May.

### TWO, CHICAGO, ILLINOIS

*President:* Bertha L. Isaacs, M.D., 670 N. Michigan Ave., Chicago 11.
*Secretary:* Leona R. Fordon, M.D., 1944 Euclid, Berwyn, Ill.
*Membership Chairman:* Gertrude Engbring, M.D., 4753 Broadway, Chicago 40.
Meetings held monthly.

### THREE, MARYLAND

*President:* Elizabeth Acton, M.D. 800 Cathedral St., Baltimore 1.
*Secretary:* Ruth Allen, M.D., 1261 E. Belvedere Ave., Baltimore 12.
Meetings held first Thursday of month.

### FOUR, NEW JERSEY

*President:* Hilda C. Fliegel, M.D., 126 Gifford Ave., Jersey City.
*Secretary:* Kathleen Shanahan, M.D., 411 Churchill Rd., West Englewood.
*Membership Chairman:* Ella Coughlan, M.D., 10 Oakwood, Orange.

### FIVE, PORTLAND, OREGON

*President:* Miriam Luten, M.D., Medical Dental Bldg., Klamath, Oregon.
*Secretary:* Dorothy Vinton, M.D., 2455 N.W. Marshall, Suite 5, Portland 10.
Dinner meetings held every two months, with a symposium on scientific topics of general interest.

### SIX, OMAHA, NEBRASKA

*President:* Aileen Mathiasen-Sciortino, M.D., 6 Hall St., Council Bluffs, Iowa.
*Secretary:* Louise M. Camel Farrage, M.D., 478 Elmwood, Council Bluffs, Iowa.

### EIGHT, NEW ORLEANS, LOUISIANA

*President:* Georgiana J. von Langermann, M.D., 1430 Tulane Ave., New Orleans.

### TEN, WISCONSIN

*President:* Mary Hall, M.D., 4042 N. Wilson Drive, Milwaukee 11.

### ELEVEN, SOUTHWESTERN OHIO

*President:* Ruth C. Ferris, M.D., 9360 Montgomery Rd., Cincinnati 20.
*Secretary:* Mary M. Martin, M.D., 3035 Clifton Ave., Cincinnati 20.
Meetings held second Tuesday, September, November, January, March, May.

*(Continued on Page 280)*

## AMERICAN MEDICAL WOMEN'S ASSOCIATION, INC.

### APPLICATION FOR MEMBERSHIP

Name ..... Date .....
(Please print as it should appear in the directory.)
Address (Present) .....
Address (Permanent) .....
(Please check address to which THE JOURNAL and AMWA correspondence are to be mailed.)
Medical School ..... Year of Graduation .....
Licensed in County ..... State .....
Specialty ..... Certification by American Board of ..... Year .....
Date and Place of Birth .....
Medical Society Affiliations .....
.....
.....
Hospital and Faculty Appointments .....
.....
Public Health, Government, or Industrial Appointments .....
.....
.....

Check membership desired:

☐ Life-Dues $200 (May be paid in two installments in two consecutive years)
☐ Active-Dues $10 per annum (Branch dues not included in active membership dues and are payable to branch treasurer)
☐ Associate-No dues ☐ Junior-No dues ☐ Affiliate-Dues $5 per annum

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1960-1961

(Continued from Page 201)

### TWELVE, COLUMBUS, OHIO

*President:* Dorothy Falkenstein, M.D., 81 S. Fifth St., Columbus 15.
*Secretary:* Helen P. Graves, M.D., 350 E. Broad St., Columbus 15.

### THIRTEEN, SAN DIEGO, CALIFORNIA

*President:* Dorothea Mankin, M.D., 510 Third Ave., Chula Vista, Calif.
*Secretary:* Janet Gilman, M.D., 833 Fairway Ct., Chula Vista, Calif.
Meetings held every other month on third Wednesday from September through May

### FOURTEEN, NEW YORK, NEW YORK

*President:* Julia V. Lichtenstein, M.D., 2 W. 87th St., New York City.
*Secretary:* Helen J. Neave, M.D., 140 E. 54th St., New York City.
*Membership Chairman:* Estelle DeVito, M.D., 301 E. 21st St., New York 10.

### FIFTEEN, CLEVELAND, OHIO

*President:* Ymkje M. Van Erp, M.D., The Cornerstone, Berkshire Hills Drive, R.D. 4, Willoughby, Ohio.
*Secretary:* Elisabeth B. Ward, M.D., Cleveland Clinic, 2020 E. 93, Cleveland 6.

### SIXTEEN, PITTSBURGH, PENNSYLVANIA

*President:* Marita D. Kenna, M.D., 4740 Liberty Ave., Pittsburgh 24.
*Secretary:* Vera Barzd, M.D., Mayview Hospital, Mayview, Pa.

### EIGHTEEN, NEW YORK STATE

*President:* Lois J. Plummer, M.D., 131 Lynwood Ave., Brooklyn 9.
*Secretary:* Harriett E. Northrup, M.D., 213 E. Sixth St., Jamestown.
*Membership Chairman:* Marguerite P. McCarthy-Brough, M.D., 1811 W. Genesee St., Syracuse.

### NINETEEN, IOWA

*President:* Dorothy Forsythe, M.D., Newton.
*Secretary:* Rosalie Turner, M.D., Nashua.
Meetings held each April, in conjunction with state medical meeting.

### TWENTY (BLACKWELL), DETROIT, MICHIGAN

*President:* Brita R. McLean, M.D., 755 University Place, Grosse Pointe 3, Mich.
*Secretary:* Avis M. Olson, M.D., 13798 Mecca, Detroit 27. Meetings held five times a year.

### TWENTY-THREE, LOS ANGELES, CALIFORNIA

*President:* Elizabeth Larsson, M.D., 1700 Brooklyn Ave., Suite 202, Los Angeles 33, Calif.
*Secretary:* Edith Shepard, M.D., 1014 So. Spaulding, Los Angeles, Calif.
*Membership Chairman:* Elizabeth Mason-Hohl, M.D., 1234 Vermont Ave., Hollywood, Calif.

*(Continued on Page 320)*

---

**CONSTITUTION OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION, INC.**

Article I, Section 3A. A woman is eligible for **Active Membership** if she holds the degree of Doctor of Medicine from an accredited medical school, who is a citizen and resident of the United States, and who is in good professional standing.

Article I, Section 5. A woman is eligible for **Associate Membership** if she is an intern, resident-in-training, fellow, or physician in the first year of practice. She does not pay dues.

Article I, Section 6. A woman is eligible for **Junior Membership** if she is a student at an accredited medical school in the United States. She does not pay dues.

Article I, Section 7. A woman may be granted **Affiliate Membership** by the Executive Board if she meets all the requirements for active membership except that of U.S. citizenship and residency.

All members receive the official publication, the JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION. Life and Active members receive membership in the Medical Women's International Association.

Signature.....

Endorsers are required only if applicant is NOT a member of a State or County medical society. Endorsers must be members of American Medical Women's Association.

Endorser: 1. ..... Address.....

2. ..... Address.....

Checks payable to the American Medical Women's Association, Inc. must accompany application. Mail to Treasurer, AMWA, 1790 Broadway, Room 315, New York 19, N.Y., or to the Branch Treasurer.

# IRON PLUS THE BENEFITS OF A FECAL SOFTENER

# OPTIMAL RELEASE IN THE AREA OF OPTIMAL UPTAKE

# NEW FERRO-sequels®

SUSTAINED RELEASE IRON CAPSULES LEDERLE

A rational approach to the treatment of iron deficiency. The sustained, timed action releases the bulk of the iron in the duodenum-jejunum and some in the ileum, closely approximating the normal sequence of absorption of medicinal iron.[1] The possibility of G. I. irritation is reduced because ferrous fumarate is an improved, better tolerated iron, and concentration of iron is not unduly high at any point. FERRO-SEQUELS also contain dioctyl sodium sulfosuccinate which helps soften stools for easier elimination.

Each two-tone, green FERRO-SEQUELS contains:

| | |
|---|---|
| Ferrous fumarate (equivalent to 50 mg. elemental iron) | 150 mg. |
| Dioctyl sodium sulfosuccinate | 100 mg. |

Dosage: 1 or 2 SEQUELS daily. Supplied: Bottle of 30.

1. Goodman, L. S., and Gilman, A.: The Pharmacologic Basis of Therapeutics, Second Edition, The Macmillan Company, New York, 1955, pp. 1454-5.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

***for effective progestational therapy—by mouth***

# NORLUTIN®

(norethindrone, Parke-Davis)

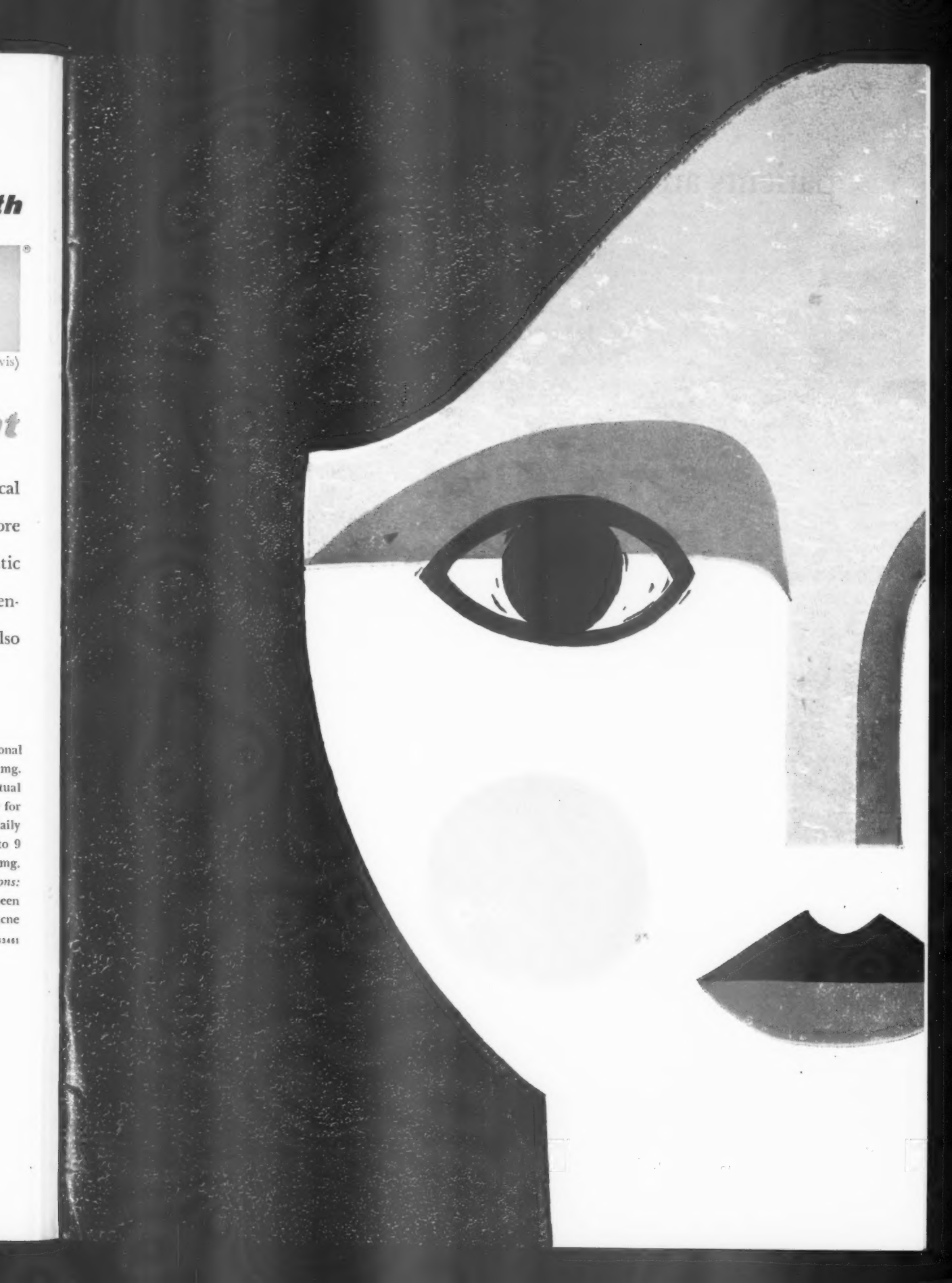
## *potent oral progestational agent*

When given in small, oral doses, NORLUTIN has shown itself capable of producing clinical results comparable to those of parenterally administered progesterone and has therefore proved valuable in many hormonal disorders of menstruation and pregnancy. Therapeutic efficacy in such cases may be attributed to the capacity of NORLUTIN for restoration of estrogen-progesterone balance. Through its more convenient route of administration, NORLUTIN also enhances patient cooperation…helps to maintain a more stable regimen.

NORLUTIN (norethindrone, Parke-Davis), 17-alpha-ethinyl-19-nortestosterone, 5-mg. scored tablets. *Indications:* Progestational deficiencies. *Dosage* (assuming 28-day cycle): Amenorrhea, menstrual irregularity, functional uterine bleeding, infertility—5-20 mg. daily starting the fifth day of the cycle, ending the twenty-third day. Allow 5 days for withdrawal bleeding to occur. Habitual abortion—5 mg. twice daily on positive pregnancy test, through thirty-eighth week. Threatened abortion—20 mg. twice daily for five days, then 5 mg. twice daily through thirty-eighth week. Premenstrual tension, dysmenorrhea—10 mg. once or twice daily starting in pre-ovulatory phase, ending with the twentieth to the twenty-third day. Endometriosis—Treatment extends 6 to 9 months. Initially give 10 mg. daily for 2 weeks, increased by 10 mg. every 2 weeks up to 20 to 30 mg. daily. Pregnancy test—10 mg. daily for 3 days in nonpregnant women will produce withdrawal bleeding within 2 to 4 days after cessation of therapy. *Precautions:* Masculinization of the female fetus has been reported. Other side effects such as transient lethargy and nausea have also been reported. Spotting before calculated onset may indicate insufficient dosage. Development of hirsutism, change of voice, and acne have been reported as side effects. *Supplied:* 5-mg. scored tablets, bottles of 30. 63461

**PARKE-DAVIS**

*PARKE, DAVIS & COMPANY, Detroit 32, Michigan*



patients are happier when doctors choose

FLEET® ENEMA

*Ready-to-Use Squeeze Bottle*

# because it's so easy to give... and so easy on the patient

Patients prefer FLEET®ENEMA because it's so simple and easy to take—completely without the discomfort of old-style enemas. Nurses enjoy its safe, sure administration. No more preparation and cleanup! And physicians rely on its predictable, thorough cleansing action.

Pre-lubricated, anatomically correct 2-inch rectal tube avoids injury

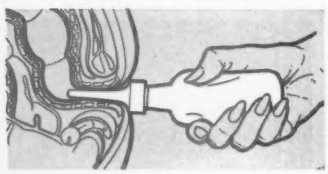
Check valve regulates flow

Just 4 fl. oz. of precisely formulated solution* provides thorough cleansing without irritation or discomfort

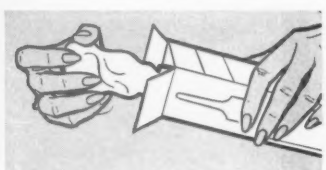
Compact squeeze bottle unit—no loose or moving parts

*100 cc. contains: 16 Gm. sodium biphosphate and 6 Gm. sodium phosphate in 4½-fl. oz. squeeze bottle. *Pediatric size*, 2¼ fl. oz. *Also available:* FLEET OIL RETENTION ENEMA, 4¼-fl. oz. ready-to-use unit containing Mineral Oil U.S.P.

1. *Ready to use*...no preparation necessary...just remove protective cover



2. *Easy to administer*...just squeeze bottle with one hand...no contact with rectal area



3. *Disposable*...replace used enema unit in original container and discard...eliminates cleanup and sterilization

Fleet

FLEET® ENEMA *Ready-to-Use Squeeze Bottle* C. B. FLEET CO., Inc. Lynchburg, Virginia

relief
from pain,
fever,
and inflammation

■ *When inflammation is present, Darvon® combined with A.S.A.® Compound reduces discomfort to a greater extent than does either analgesic given alone.*

# DARVON® COMPOUND and DARVON COMPOUND-65

. . . combine the analgesic advantages of Darvon with the antipyretic and anti-inflammatory benefits of A.S.A. Compound. Darvon Compound-65 contains *twice* as much Darvon as regular Darvon Compound without increase in the salicylate content or size of the Pulvule®.

Formulas:

| Darvon Compound | | Darvon Compound-65 |
|---|---|---|
| 32 mg. | Darvon | 65 mg. |
| 162 mg. | Acetophenetidin | 162 mg. |
| 227 mg. | A.S.A.® | 227 mg. |
| 32.4 mg. | Caffeine | 32.4 mg. |

*Usual Dosage:*

*Darvon Compound: 1 or 2 Pulvules three or four times daily.*

*Darvon Compound-65: 1 Pulvule three or four times daily.*

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly)
Darvon® (dextro propoxyphene hydrochloride, Lilly)
A.S.A.® Compound (acetylsalicylic acid, acetophenetidin, and caffeine, Lilly)
A.S.A.® (acetylsalicylic acid, Lilly)

*Eli Lilly and Company*
*Indianapolis 6, Indiana, U.S.A.*

120210

Journal of the
AMERICAN MEDICAL WOMEN'S ASSOCIATION

Volume 16 April, 1961 Number 4

# Role of WHO in the Congo

P. M. Kaul, M.B.B.S., D.P.H., M.R.C.P.

ON JULY 18, 1960, the Director-General, Dr. M. G. Candau, received a cable from the Secretary-General of the United Nations, informing him that in the newly independent Republic of the Congo (Leopoldville) the health situation was rapidly deteriorating and that the Secretary-General would be most grateful for anything WHO could do to help.

On July 20, the Director-General received two more cables from Mr. Dag Hammarskjold, Secretary-General of the United Nations, giving further information on the health situation and urging that everything possible be done by WHO to meet the situation in co-operating with the International Committee of the Red Cross and the League of Red Cross Societies. Dr. Candau promised all possible assistance, and took immediate steps to provide it.

*Dr. Kaul, Assistant-General of the World Health Organization, went to the Congo (Leopoldville) on July 21, 1960, for approximately a month to act as personal representative of the Director-General, appraise the situation, and advise him on any further steps WHO could take to help.*

On July 22, the Security Council of the United Nations adopted a resolution in which, *inter alia*, it invited the specialized agencies to render to the Secretary-General such assistance as he might require. WHO responded to this appeal also in accordance with its agreement with the UN. On the same day as the Security Council took its resolution, the Director-General informed the members of the WHO Executive Board of the situation.

A number of WHO staff members meanwhile had been detached from their regular duties and sent to Leopoldville. In the course of the next few days others were temporarily assigned to the Congo as the assessment of needs indicated, and the recruitment of additional staff began during the last days of July.

A team of senior advisers was made available to the Ministry of Health of the Congo in the third week of July. This team assisted the Ministry in studying the existing medical organization. It surveyed the major epidemiological problems and assessed the needs of the country. Later WHO also provided advisers in public health administration and environ-

An expectant mother being brought to a lying-in hospital in the province of Kivu. Such services are increasingly in popular demand.

mental sanitation for each of the provincial health departments. There had existed an efficient health organization, which included extensive programs of medical care, environmental sanitation, and control of endemic and epidemic diseases. In fact, it was estimated at the time that it would take at least 10 to 15 years to train adequate numbers of local personnel to staff these medical and health services so that they could function adequately.

Appeals were made to the League of Red Cross Societies and the International Committee of the Red Cross to assist in this emergency by undertaking the recruitment of medical care teams through the national Red Cross societies. These were supported by appeals from the WHO Director-General to the national health authorities of these same countries with a request that they assist their national Red Cross Societies to respond. Some 33 national societies were approached, most of which promptly dispatched teams. In addition some governments sent medical care teams by direct arrangements with the Government of the Congo.

WHO accepted the responsibility for coordinating, through the Ministry of Health of the new republic, the activities of all international personnel concerned with the health of the civilian population, no easy task at first. The situation was far from clear: there were conflicting reports about the breakdown of the services, the acute shortage of medical personnel, the spread of epidemics, and the lack of medical care.

Furthermore, the security situation made it difficult, and at times impossible, to obtain information about the extent of the emergency and the real health needs. WHO therefore decided to pursue the dual aim of dealing with the emergency and assisting the Congolese Government to re-establish the health services—two objectives to be planned and worked for simultaneously.

The emergency affected both the medical care and the preventive health services. The main problem regarding medical care was the lack of qualified personnel. In 1958 the Congo had 703 doctors, 82 pharmacists, 43 dentists, and 11 biologists, all of them European. A large number of them had left, but how many no one could say with any certainty. Many hospitals were without doctors and others were operating with greatly reduced staffs, although the nurses, most of them members of religious orders, had stayed at their posts.

Thanks, however, to the prompt arrival of emergency teams provided by the national Red Cross societies and certain governments, effective action could be taken, and WHO placed the teams, which eventually numbered 37, where they were most needed. A few weeks after the appeal went out there were 150 doctors and nurses from some 25 countries in the Congo, excluding WHO personnel.

In the preventive field the problem was perhaps greater since the breakdown affected the services of environmental sanitation, immunization, vector control, and control of communicable diseases. In some areas services were only partially affected, but in many others, and especially the vast rural areas and the distant population centers, they were completely paralyzed.

WHO therefore immediately recruited a number of public health medical officers and sanitary engineers. The first of the specially recruited personnel arrived in the third week of August and by the end of September, five medical officers and four sanitary engineers had taken up duty in various provinces. At the same time four health teams contributed by the Government of France to WHO began work in the rural areas. Apart from seeing that the best possible use was made of the medical teams that governments and national

Red Cross societies generously put at the disposal of Congo, WHO's task was primarily to assist the Ministry of Health in taking emergency measures to maintain services in such fields as public health administration, medical care, sanitary engineering, laboratory work, and nursing.

But there were no Congolese doctors. Only two were expected to graduate in 1961 from the Medical School of the Lovanium University, not far from Leopoldville, and by 1965 there would not be more than 19 graduates if all those enrolled as students were to qualify. There was also a large number of young men who had received four to six years training as medical assistants at two schools in the Congo; many of them had had much practical experience in hospital or other health work.

It was recognized immediately that in spite of other pressing matters, the main task of WHO was to help the Congo to train its own physicians, nurses, and other health workers, who form the basis of the health service of any country. This, as Dr. Candau pointed out after his first visit to the Congo in July, would have to be part of the general social and economic development, which must be the Congo's path if she was to take her full place in the community of free nations.

A specialist in medical education was among the first group of WHO advisers to be sent to the Congo to make a study to develop a program of training for physicians and medical assistants.

Negotiations were immediately undertaken with Lovanium University with a view to enlarging the medical school so that it would be possible to accept 30 to 40 students a year instead of 20. WHO was willing to assist by providing nine additional professors for the medical school and four for the nursing school.

WHO also awarded fellowships for special medical studies and brought a group of seven Congolese undergraduates to Europe to study in Geneva and Lyons to qualify in medicine.

The Organization examined the curriculum of the School for Medical Assistants in Leopoldville to see how the standard of its graduates, trained under the Belgians, could be raised to that of fully qualified doctors after a period of study lasting for perhaps three or four years. After negotiations with five French universities, who had experience in organizing special training for medical assistants from their former African territories, WHO awarded fellowships to 60 of the 138 medical assisants in the Congo, to enable them to take medical degrees. The French Government has actively co-operated in this plan, and now 10 to 13 medical assistants are completing their training at the universities of Rennes, Nantes, Bordeaux, Lyons, and Montpellier. They should be able to qualify as physicians in about three years time, when, with fresh medical graduates from the Lovanium University, they will constitute the backbone of the future health and medical services of the Congo.

Throughout the continuing emergency in which the Congo has found itself since independence was attained, the health situation has so far largely been maintained at a reasonable level and there have been no epidemic outbreaks of disease.

This is due to the efforts of the Congolese health workers, including the medical assistants and nurses, as well as to the contribution of international personnel, particularly to members of Red Cross and Red Crescent societies. However, the emergency period is not yet over. WHO is actively recruiting a medical operational staff of 130: general surgeons, senior physicians with tropical experience, district medical officers, microbiologists, anesthesiologists, pharmacists, malariologists, sanitarians, roentgen ray technicians, biochemists, and public health medical officers.

The success of all these efforts depends on the political stability of the country, and, if this can be assured, there is no big health problem that cannot be solved.

Health is more than the absence of disease.

# Quarantine in the Jet Age

Robert I. Hood, M.D., M.P.H.

On Oct. 3, 1960, BOAC flight BA 791, a Comet 4 aircraft, landed in London. One of the passengers disembarking was a London resident who had been attending an international rubber study group in Kuala Lumpur in the Federation of Malaya. He had been in Kuala Lumpur from September 3-30 and then departed for Singapore and Colombo, Ceylon, where he joined the jet flight coming from Tokyo. On October 5 he sought medical advice because he was not feeling well and had noted a rash on his body. He was hospitalized with a clinical diagnosis of modified smallpox. This information was telephoned to Headquarters of the World Health Organization in Geneva by the Ministry of Health in London. By cable, the Organization informed the health administrations of the countries where this flight had landed, namely Colombo, Bombay, Teheran, Istanbul, and Rome. The Organization further informed countries of North America through our Regional Office for the Americas in Washington.

*Dr. Hood is Chief Medical Officer, International Quarantine, World Health Organization, Geneva, Switzerland.*

Travelers on this same flight were tracked down in all of the countries concerned, including the United States. Several of these travelers had left Rome shortly after October 3 and proceeded to countries of Europe and Africa. By October 12 nine contacts of this clinical case of smallpox in London had returned to the United States. All had valid smallpox vaccination certificates and were placed under surveillance, meaning that these persons were requested to see their private physicians and to report any unusual illness to him. Only one infant, a contact of this case, had no vaccination certificate and was

isolated at the U.S. Public Health Service Hospital, Stapleton, in New York City. Seven other American contacts of this London resident were traced and found to be still in Europe or Asia. On their return to the United States none of them were isolated, since they all had valid smallpox vaccination certificates. No secondary cases were reported and only one person was isolated. This is one example of present quarantine practice, but quarantine was not always thus.

## HISTORICAL EVOLUTION OF QUARANTINE

To protect a country from pestilence imported from abroad has been the aim of the medical profession and governments for more than six centuries. Venice, in 1348, was the first community to frame a definite course of action when it authorized the overseers of public health to spend public money for the purpose of isolating infected ships, goods, and persons at an island of the lagoon.

The first maritime quarantine station of which there is any historical record was established in 1403 at the island of Santa Maria di Nazareth at Venice. By 1448 Venetian authorities formed a complete code of quarantine regulations, which served as a model for all others for over 400 years. All merchants and persons coming from the Levant were required to remain in the House of St. Lazarus on the island in the lagoon for a period of 40 days before admission into the city.[1] This arbitrary provision was formulated in the days when little was known of the spread of disease. The term "quarantine" was derived from the Italian word for 40—*quaranta*. Other cities and countries followed the example of Venice. Over the succeeding centuries some form of sanitary regulation became general in many countries.

The quarantine practices of those days were based on the belief that the passage of time would give dormant disease time to manifest itself and would lead to dissipation of the infection brought by persons or goods from an infected area. Some of the resulting practices have been described by McDonald:

> Quarantine was indeed a strange and marvellous ritual in the Mediterranean and Adriatric ports, where lazarettos abounded, and the law was vigorously enforced. On arrival, the ships would be visited by the quarantine officer, who, making elaborate use of iron tongs and vinegar, would examine the bill of health and prescribe quarantine accordingly. For plague the highest rigour was enforced for 80 days. Goods were exposed on deck or turned daily for 20 days. If cotton were part of the cargo, the bales would be broken open, and the expurgators would throw the contents over their heads daily for 60 days. If no man contracted plague, the cotton was considered free from infection. Meanwhile the crew and passengers were confined to the lazaretto and examined daily for tenderness in the axilae and groins. This procedure was modified in the case of healthy ships from infected ports. The period was reduced to 20 days, and the examination of the cotton to the thrusting of a bare arm into each bale. In some places the authorities took far less interest and merely locked everything and everybody up for a period of 20-40 days, and took further action only if cases occurred.[2]

It is not surprising that opposition to quarantine came from those who were inconvenienced by it. "One of the most striking examples of the [inconveniences and] hardships which passengers sometimes had to bear less than 75 years ago was the misadventure of those aboard the Italian ship Matteo Bruzzo, which sailed from Genoa for Montevideo on September 30, 1884. Cholera broke out on the ship on arrival at Montevideo, and it was refused permission to land either there or at Rio de Janeiro. It returned to Italy and was quarantined at the island of Pianosa, near Elba. When the passengers of the ship finally disembarked at Leghorn, they had spent nearly four months to go a distance of 78 miles."[3]

Quarantine restrictions varied from one country to another. Commercial interests became increasingly impatient with the damage caused by quarantine restrictions and governments found themselves helpless in the face of such pandemics, like those of cholera in the nineteenth century. These factors prepared the ground for international action on quarantine regulations.

In 1851 the French Government convened the first International Sanitary Conference to consider a convention embodying international rules to promote uniformity in quarantine practice. Nine more international sanitary conferences were convened in the nineteenth century. They succeeded in preparing a number of limited conventions, limited because not enough was known of the methods of spread or control of diseases. However, they did lead to acceptance of international discussion as a means of dealing with health matters of interest to many countries.

At the time of the International Health Conference, convened by the Economic and Social Council in 1946, some 13 international

sanitary conventions and similar arrangements dating from 1903 were in force since states became bound by these conventions only after deposit of a notice of ratification. Nearly each succeeding convention was framed in such a way that it superseded the previous convention, but a lack of uniformity in ratifications produced a chaotic situation in 1946. The International Health Conference developed an important new mechanism for rapid universal agreement on international health regulations. Under the provisions of Article 22 of the WHO Constitution, a state is required within a stated period of time to "contract out" rather than "contract in" after the World Health Assembly adopts regulations.[4] Armed with this new mechanism and much new scientific knowledge the WHO was in a fortunate position when it began careful preparation for a new set of international sanitary regulations to replace all existing sanitary conventions and similar arrangements. The WHO International Sanitary Regulations adopted by the fourth World Health Assembly in 1951 are truly a universally accepted code of quarantine practice, some 180 states and territories being bound by them.[5]

Commercial interests, especially airlines, are understandably still opposed to quarantine restrictions. In 1951 passengers carried on scheduled international air routes numbered 7 million; by 1959 this number had risen to 20 million.[6] The seat capacity of planes has greatly increased, for example, a DC 6 can carry about 70, whereas a Boeing 707 carries approximately double this number. WHO maintains close co-operation with the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), especially since the principal aim of the International Sanitary Regulations is to ensure the maximum security against international spread of diseases with the minimum interference with world traffic.

## EPIDEMIOLOGICAL INTELLIGENCE SERVICE

Another inherited function of WHO, not so old as international quarantine itself but one of its modern essential tools, is the world-wide Epidemiological Intelligence Service maintained in connection with the duties of the Organization to administer the International Sanitary Regulations. This service, with its headquarters in Geneva, collects from health administrations by telephone, cable, and airmail, information on new cases and deaths from cholera, plague, yellow fever, smallpox, typhus, relapsing fever, and other diseases of wide international importance. The information is disseminated to health authorities by telephone or cable when especially urgent and by a daily epidemiological radio bulletin from Geneva, a twice weekly radio bulletin from Cairo and Singapore, and by the *Weekly Epidemiological Record* from Geneva with similar reports from Alexandria, Singapore, and Washington. Continuing efforts are made to increase the speed and efficiency of this service, which is designed to provide port and airport health authorities and others having quarantine responsibilities with the latest data on diseases important in international traffic.

## THE QUARANTINABLE DISEASES

*Smallpox.* In these days of ever-increasing and speedier traffic, smallpox is undoubtedly the most important disease in relation to international travel. It has repeatedly demonstrated its ability to invade other countries and implant itself. During the three years 1958, 1959, and 1960 smallpox was imported in 30 countries; of these, 18 were otherwise free of the disease. Details on these 18 countries are given in table I.

*Yellow Fever.* Recently reported cases of yellow fever have been nearly all nonurban cases. For over a quarter of a century, no transmission of yellow-fever virus by international passenger traffic has been found. A jungle yellow-fever wave in Central America has proceeded since 1948 from Panama to Guatemala and British Honduras. This type of yellow fever, occurring primarily in monkeys, can be expected to invade Mexico. However, extensive *Aëdes aegypti* eradication programs in this area and in South America have greatly reduced the danger of international spread of the disease by sea or air traffic from the Americas. In Africa, the yellow-fever situation is not well enough known to permit health authorities to judge the danger of spread. In certain parts of Asia where conditions appear to be favorable for the development of yellow fever, the reason for absence of the disease over the years has not yet been determined.

In the United States the yellow-fever receptive area in the southern states runs from

South Carolina to the Eastern part of Texas.[7] Travelers, who have been in a yellow-fever infected local area within six days before arrival in these southern states, must have an international vaccination certificate against yellow fever. Further, U.S. Public Health Service officers insist on disinsection of aircraft coming from yellow-fever local infected areas. As would be expected, airlines object to disinsection of aircraft when the operation ties up the plane on the ground. Insecticide experts are now completing research on a vapor method of disinsection which would be carried out while the aircraft is in flight and would not cause injury or discomfort to passengers and crew and, of course, no damage to the aircraft. The development of more foolproof and less interfering methods of aircraft disinsection is likewise important to prevent the reimportation of malaria in countries which have spent and are spending considerable amounts of money to eradicate this disease. The insecticide experts have already come up with a less interfering method of aircraft disinsection, using the presently recommended DDT and pyrethrium formulations as aerosols.[8] Several airlines are already investigating this method of disinsection which is applied at the beginning of the flight while the airplane is taxiing into position for takeoff.

*Cholera.* This disease tends to be confined to parts of India and East Pakistan but after long absence from Thailand, West Pakistan, and Afghanistan, it appeared recently in these areas. It has since disappeared again. Increased efforts to provide potable water to the populations in Asia should be a major factor in decreasing the number of cases of cholera and lessening the danger of its spread.

In the United States, New Orleans and the Mississippi Basin had cholera epidemics during the year 1873.[9] Importation of cholera into New York by way of an infected steamer arriving in October, 1887, from Marseilles and Naples was averted by the rapid establishment of a correct diagnosis through laboratory methods. Cholera was last seen in the United States, as described by Chambers,[10] when eight badly infected ships arrived in New York Harbor in 1892. Adequate measures facilitated by the opening of a city health laboratory rendered it possible to keep

TABLE I

*Incidence of Smallpox in 18 Countries*

| Name of country usually free of smallpox | Imported during year / Number of secondary cases by year | | | | | |
|---|---|---|---|---|---|---|
| | 1958 | | 1959 | | 1960 | |
| *Africa* | | | | | | |
| Basutoland | — | — | x | 0 | — | — |
| French Somaliland | — | — | x | 110 | — | — |
| United Arab Rep. (Egypt) | x | 0 | x | 30 | — | — |
| Zanzibar | x | 0 | — | — | — | — |
| *America* | | | | | | |
| Chile | — | — | x | 0 | — | — |
| Panama | x | 4 | — | — | — | — |
| Uruguay | — | — | — | — | x | 30 |
| *Asia* | | | | | | |
| Ceylon | x | 27 | — | — | — | — |
| Iraq | x | 0 | — | — | — | — |
| Kuwait | — | — | x | 8 | — | — |
| Malaya | x | 1 | x | 38 | — | 11 |
| Muscat & Oman | — | — | x | 7 | — | — |
| Qatar | x | 0 | x | 0 | — | — |
| Singapore | — | — | x | 9 | — | — |
| *Europe* | | | | | | |
| Germany, Democratic Republic of | — | — | x | 0 | — | — |
| Germany, Federal Republic of | x | 10 | — | 9 | — | — |
| U.S.S.R. | — | — | x | 0 | x | 45 |
| United Kingdom | x | 5 | x | 0 | x | 0 |

Dr. Hsu, Singapore Health Port Officer, looks for infectious diseases among immigrants to Singapore. One by one the 270 passengers aboard a coasted vessel are examined before receiving their landing cards.

the infection at bay, with the result that none of the 10 cases occurring in the city led to the establishment of a focus.[10]

*Plague.* In Great Britain, from one half to two thirds of the people are believed to have been killed by the Black Death. Hecker's[11] estimate that 25 million or a quarter of the population fell victim to the pandemic in Europe was therefore perhaps conservative.[12] The number of cases of plague offically reported from 1956 through 1960 has shown a continuing downward trend. In these years only three ports have been involved: Bassein and Rangoon in Burma and Saigon in Vietnam during 1958 and Rangoon again in 1960. The majority of plague cases have been associated with wild rodents rather than domestic rodents.

Rat-proofing of ships is steadily increasing and more efforts are being made to keep ships continuously free of rats. Fewer ships are being deratted and instead, after inspection, receive a deratting exemption certificate. In some parts of the world oil tankers are exempt from producing a deratting or deratting exemption certificate. The Organization has suggested that states consider the possibility of concluding bilateral agreements to waive or relax provisions of the International Sanitary Regulations in respect to plague, for example, in relation to the production on arrival of a deratting certificate or deratting exemption certificate.[13] Plague experts believe that inspection of ships for rats should be continued except in some special circumstances where the ship and its cargo are not attractive to rats.

International travelers will not be inconvenienced by any quarantine measures permitted under the International Sanitary Regulations in respect to plague. A vaccination certificate against plague may not be required in international traffic.

*Typhus and Relapsing Fever.* These diseases have shown little tendency to spread, except in local areas of a few countries where they are in fact endemic. Given a reasonably normal world situation, neither disease is an actual danger in international traffic. Further, vaccination against these two may not be required of international travelers.

## DISCUSSION

Quarantine measures in these days are far less disturbing for international travelers and carriers than even 10 years ago. The International Sanitary Regulations administered by WHO and in force for some 180 states and territories are evidence that countries of the world can and do get together for international co-operation in public health. Even the few countries not legally bound by the Regulations follow this universal code of practice in practically all respects.

Even though the quarantinable diseases are continuing to be driven back to their endemic homes, they will remain a constant threat to the world until all the endemic focuses have been eradicated. The watchword at ports and airports must still be one of constant vigilance. The World Health Organization continuously and its Committee on International Quarantine meeting annually keep the quarantinable diseases under review with the aim of ensuring the maximum security against the international spread of diseases with the minimum interference with world traffic.

## SUMMARY

The historical development of international quarantine has been briefly outlined. The six quarantinable diseases and malaria have been described in their relation to international traffic. Present-day practices under the International Sanitary Regulations and some aspects of the role of WHO in administering these Regulations are given.

REFERENCES

1. Maritime Quarantine Administration, Service Publication no. 16, Australia, 1919.

2. McDonald, J. C.: History of quarantine in Britain during nineteenth century, Bull. Hist. Med. *25*:22-44, Jan.-Feb. 1951.

3. Gear, H. S., Deutschman, Z., Disease control and international travel, WHO Chron. *10:* 276, 1956.

4. Proceedings and Final Acts of the International Health Conference, New York, June 19-July 22, 1946, Official Records of the WHO, no. 2, June, 1948.

5. WHO International sanitary regulations, Weekly Epidemiological Record, Geneva, 36:33-36, 1961.

6. ICAO Digest of Statistics, no. 80, Series T. no. 17.

7. Weekly Epidemiological Record, *36*: 32, 1961.

8. WHO Tech. Rep. Ser., *206*, 1961.

9. Pollitzer, R., Cholera, WHO Monograph Series no. 43, p. 37.

10. Chambers, J. S.: Conquest of Cholera; America's Greatest Scourge, Macmillan, New York, 1938.

11. Hecker, J. F. C.: The Epidemics of the Middle Ages, London, 1844.

12. Pollitzer, R.: Plague, Monograph Series, Geneva, no. 22, p. 14, 1954.

13. Thirteenth World Health Assembly, Geneva, May 3-20, 1960, Part I: Resolutions and Decisions, Annexes, Official Records of WHO, no. 102, p. 43 Geneva, Switzerland, Aug. 1960.

---

## Accidents Need Not Happen

The kitchen, the stairs, and the bedroom of a modern house hold more dangers than the fastest car or plane, the steepest mountain, or a ship in a storm.

Simple things, like aspirin left lying on a table, a kettle of boiling water, a forgotten sharp-edged tool, will make more cripples and kill more children this year than will poliomyelitis and tuberculosis together.

Perhaps it is because the dangers are so commonplace that accidents in the home seem hard to avoid. Even the absent-minded or reckless person will look before crossing a road; even the most prudent will unthinkingly run across a polished floor to answer the phone.

*"Accidents Need Not Happen" is the theme of WHO for 1961-1962.*

# Comparative Medical Studies of Chronic Degenerative Diseases as a Veterinary Public Health Activity

Martin M. Kaplan, V.M.D., M.P.H.

COMPARATIVE MEDICINE can be defined as the study by comparison and contrast of biological phenomena in health and disease in various animal species, including man. Such studies are not new, forming a part of ancient as well as modern medicine with respect to anatomy, physiology, pharmacology, etc., as well as to communicable and other diseases. Their incorporation as part of veterinary public health* activities, however, is a recent development in that they comprise a co-ordinated and directed application of comparative medical studies to major disease entities of man.

Chronic degenerative diseases are emerging as the most pressing medical problems of the present and future, resulting from the steady subjugation of acute communicable diseases that is now being accomplished in most parts of the world. Comparative medical studies of acute communicable diseases, and of infectious agents in general, retain a high level of importance to public health, but consideration here will be limited only to the principal chronic degenerative diseases (some of which may have a communicable aspect), notably cancer and cardiovascular diseases. Other chronic conditions such as muscle, bone, joint, and metabolic disorders will be touched upon only briefly.

For the purpose in question a distinction must be drawn between experimentally induced diseases of the chronic degenerative type in animals and those conditions that occur spontaneously. A vast amount of work and attention is understandably being given to experimentally induced diseases, especially in laboratory animals, and the pragmatic results obtained fully justify such an approach so that its theoretical advantages and limitations need not be considered here. (It might be noted in passing, however, that certain of the common cardiovascular diseases of man, such as rheumatic fever, are not at present experimentally reproducible in animals, while experimentally induced diseases may not be duplicates of the human condition, as in hypertension and atherosclerosis.) Such experimental work will undoubtedly continue to receive considerable attention and support in the future. The particular and unique contribution of comparative medical studies as a part of veterinary public health activities is derived from the stimulation of research and the collection and analysis of data on spontaneous disease processes in domestic animals and (3) a prospective study in a dog colony analogous diseases in man. The lines of division indicated above, namely spontaneous versus induced disease and domestic in distinction to laboratory animals should not be treated too rigidly because all possible areas of investigation must be entered if leads so indicate. The arbitrary demarcations are made in part for practical considerations, that is, the reasonable possibilities of accomplishment by veterinary public health workers. This does

*Veterinary public health has been defined as "the field of activity which protects and advances human well-being by utilizing the combined knowledge and resources of all those concerned with human and animal health and their interrelationships." (WHO Tech. Rep. Ser. 111, 1956).

*Dr. Kaplan is Chief of Veterinary Public Health, World Health Organization, Geneva, Switzerland.*

not lessen the obligation of such workers to be fully aware of developments in related areas of scientific activity which may be applicable to investigations amenable to a comparative medical approach allied to veterinary public health work.

The rationale for comparative medical studies in a veterinary public health context may be summarized as follows.

1. Spontaneous disease processes such as cancer and cardiovascular diseases are biological phenomena common to many species of animals and it may be safely assumed that these conditions are broadly comparable to those observed in man.

2. Studies of these diseases in domestic animals lend themselves uniquely to epidemiological types of investigation. Thus environmental factors common to man may be segregated and studied from the standpoint of their possible influence on etiology.

3. A wealth of material is readily obtainable from abattoirs, veterinary clinics, and from the carefully kept records of animal groups (herds or flocks) of similar or contrasting genetic, age, and nutritional backgrounds. The latter factors, amenable to study, may be operative in a particular disease process.

4. The life span of certain animals physiologically resembling man, such as dogs, telescopes that found in man, thereby reducing the period of time needed for study of age-associated components.

5. Species of animals differ in anatomical and physiological details, which may result in individual expressions of similar disease processes related to structural or functional variables distinguishing certain species. The existence of these variables, when combined with a detailed understanding of them, may well shed light on the specific factors involved in certain disease conditions.

6. Finally, animals can be experimented with more easily than man for the investigation of any leads of particular interest.

As mentioned previously, the two major problems confronting human medicine with respect to chronic diseases are cardiovascular disease and cancer. The World Health Organization has been examining these fields to see how research in animals might be intensified on an international scale for possible light such research may shed on analogous human problems. These diseases are considered below, followed by a short reference to other chronic degenerative conditions.

## CARDIOVASCULAR DISEASES

While there is a large amount of scattered knowledge of cardiovascular diseases conditions in different animals,[1] a systematization of this knowledge is lacking and epidemiological techniques have rarely been applied to analyze environmental and other influences.

WHO scientific advisory groups have surveyed the possibilities of undertaking and co-ordinating comparative cardiovascular studies pertinent to major human problems. WHO has sought to determine where its unique co-ordinating function may be most profitably applied, and is focusing attention on a few specific problems that it might investigate, keeping in mind present limitations of specialists and funds. At the same time, it hopes to stimulate long-term studies through collaborating centers and by fostering the training of a few specialists so that base-line data might be assembled over the course of the next few years.

Particular attention will be given to (1) pilot surveys of naturally occurring atherosclerosis in swine, cattle, sheep, poultry, and wild birds; (2) the examination of hearts from wild and domestic animals in Uganda to determine if a cardiomyopathy common to man in that area occurs also in animals; and (3) a prospective study in a dog colony (beagles) where several hundred dogs would be followed very carefully throughout their entire lives for the development of spontaneous cardiovascular disease. This study would be incorporated into observations on these dogs now being held for other purposes.

There are many analogous cardiovascular conditions in man and animals that deserve study. For example, with reference to the questions of arterial hypertension and pulmonary heart disease, it would be of interest to study more closely the phenomenon of natural high blood pressure found in giraffes and turkeys. Also, the so-called "brisket disease" found in cattle living in high altitudes is no doubt comparable to high altitude disease in man.

The following are some cardiovascular diseases and clinical syndromes noted in animals, which may be considered analogues of certain human conditions: (1) *idiopathic pericarditis*—pericarditis with effusion in dogs; (2) *cardiomyopathies*—fatal syncope (plötzliche Herztod) in swine, round heart disease in poultry; (3) *valvular heart disease*—chronic proliferative valvular fibrosis in

dogs; (4) *congenital heart disease*—dogs, swine, and calves for surgical research, dogs and swine for genetic research; (5) *pulmonary heart disease*—brisket disease in cattle, *Dirofilaria immitis* infestation in dogs, heaves in horses, hypertrophy of the pulmonary muscular arteries in cats; (6) *arterial hypertension*—naturally occurring hypertensive disease in dogs and monkeys, physiological high arterial pressure in turkeys and giraffes; (7) *congestive heart failure*—naturally occurring congestive heart failure in dogs; and (8) *cardiac arrhythmias and conduction disturbances*—naturally occurring atrial fibrillation in horses, cattle, and dogs, physiological atrioventricular block in horses, naturally occurring Wolff-Parkinson-White syndrome in cattle and dogs, naturally occurring bundle branch block in dogs.

## CANCER

Neoplasms of domestic animals[2] may be studied from the aspect of etiology (such as genetic, carcinogenic, endocrinological, or viral causal agents), histopathogenesis, histopathology, biological behavior, epidemiology and geographical distribution, and chemo- and radiotherapy.

The most striking feature of cancer in domestic animals is the difference in incidence and site of origin between the various species, and as compared with man.

Thus, tumors of some importance in the horse include melanomas of the skin, carcinoma of the glans penis, teratoma of the testis, squamous cell carcinoma of the eyelid and of the cardiac portion of the stomach, and carcinoma of the nasal cavities and sinuses.

A common malignant neoplasm of the ox is lymphosarcoma (lymphatic leukosis), and in others of importance is squamous cell carcinoma of the conjunctiva, which is particularly encountered in the United States. On the other hand, cancer of the mammary gland of the cow is very rare.

Neoplasms appear to be rare in sheep, which are largely slaughtered young, but two of importance among these rare tumors are tumors of the liver cells (unrelated to fluke disease or to cirrhosis), and more or less generalized lymphosarcoma.

In the pig, which is usually slaughtered when young, tumors are rarely seen. The most common tumor appears to be more or less generalized lymphosarcoma, while embryonal nephromas also occur.

In the dog, in London, the most important and common cancers are cutaneous melanomas, malignant tumors of the mammary gland, carcinoma of the tonsillar epithelium, intestinal lymphosarcoma, and lymphatic leukosis.

In the cat, similarly, they are squamous cell carcinoma of the tongue and the esophagus, carcinoma of the mammary gland, sarcoma of bone, and visceral lymphosarcoma.

In fowl, the predominant neoplastic process is leukosis in its various forms.

It will be seen that some tumors are important in both man and domestic animals, while some are of importance in one, and of little or no importance in the other. The significance of these differences needs study.

These differences in incidence and site may extend to the breed and sex within a species; thus, limb bone sarcomas are largely restricted to the large breeds of dog, and upper alimentary tract cancer in cats is almost entirely a disease of castrated males.

In considering a possible explanation of these variations in incidence, it is stressed that in this field, as in that of cardiovascular and other diseases, there is a need for a systematic summary of available knowledge of species differences of an anatomic, histologic, physiologic, biochemical, or biological nature, as these must influence any interpretation of observed differences. These factors might underlie differences in (a) etiology, such as susceptibility to carcinogenic action, perhaps due to differences in metabolic rate and metabolic pathways; (b) histogenesis, such as melanomas in man and dogs; and (c) clinical course and severity of the disease, as seen in the difference in seminoma in man and dog, which only rarely metastasizes in dogs. However, many of the species differences in incidence of tumors may be due to such factors as different mode of life, such as being herbivorous or carnivorous, in more or less close association with man, of town or country habitat, and perhaps especially by age of death or slaughter.

A study of aging processes and of neoplastic disease in animals which are normally slaughtered for food when young, but could be allowed to live out their lifespan, should be encouraged. This could be done, for example, in the case of cattle in India.

At the moment, there are a number of

examples of tumors of domestic animals that appear to be ripe for more intensive study, from one or more angles, but it is to be expected that further study in parts of the world that are at present largely unknown as far as animal tumors are concerned, might well reveal others that would also be rewarding subjects.

The general course of events will probably be that broad surveys in certain countries or areas will reveal or confirm that certain tumors there are of particular or even unique importance. These tumors will then be more intensively studied as spontaneous tumors, and, from this study, indications will arise of certain experimental investigations that would seem likely to yield information of specific or general significance.

The fact that certain tumors of man are of little or no significance in domestic animals also provides an opportunity for investigations: for example, to account for the rarity of mammary cancer in cattle, of prostatic cancer in dogs, of gastric cancer and lung cancer in all species, of uterine cancer in bitches (which are prone to endometrial hyperplasia), and so on. It is clear that man is probably just as special a case as any of the species of domestic animals in the patterns of incidence of his common tumors.

Tumors that might repay special study now are: (1) lymphosarcoma and allied conditions (leukemias) in all species; (2) carcinoma of the bladder in cattle in certain areas of abnormally high incidence (such as Turkey); (3) "cancer eye" and "horn core" cancer of cattle; (4) melanomas of horse, ox, and dog; (5) alimentary and lung tumors of dogs and cats (including a study of the geographic distribution of lung tumors)—carcinoma of tonsil of the dog, and mouth, tongue, and esophagus of cat, with particular reference to atmospheric pollution; (6) testical tumors, bone sarcomas, transmissible venereal tumor, mammary neoplasms, and mast cell tumors of the dog; and (7) "jaagsziete" of sheep.

## MUSCLE, BONE, JOINT, AND METABOLIC DISORDERS

Information on this group of diseases is scattered among various specialties. The following list indicates some diseases of interest in domestic animals where study should be fruitful as regards disease problems in man: (1) inherited-congenital dysplasia of the hip in dogs; (2) osteoarthritis in cattle and horses; (3) degeneration of intervertebral discs in dogs; (4) hemophilic arthropathy in dogs; (5) pulmonary hypertrophic osteoarthropathy in dogs; (6) avian nephritis and visceral gout; (7) bacterial arthritides in livestock (for instance swine erysipelas); (8) tenosynovitis and transmissible synovitis of poultry; (9) rheumatoid arthritis in swine; (10) skeletal and articular involvement in brucellosis; (11) various myopathies in livestock; and (12) diabetes and other endocrine disorders.

## COMMENT

It is apparent that the implementation of the afore-mentioned outlined activities constitutes a long and difficult task. The challenge, however, must be met head on, with the conviction that a concerted and sustained effort will undoubtedly be eminently worthwhile in terms of adding to our understanding and eventual amelioration of the ravages caused by those premature killers and maimers of man, the chronic degenerative diseases.

## REFERENCES

1. Detweiler,* D. K.: Comparative cardiology and cardiovascular diseases, Document WHO, Comp. Med., 1, September 28, 1960.
2. Cotchin,* E.: Neoplasms of domesticated mammals, Rev. Ser. 4, Commonwealth Bureau of Animal Health, Farnham Royal, Bucks, England, 1956.

*I should like to acknowledge my indebtedness to Drs. Detweiler and Cotchin who served as WHO consultants in comparative cardiovascular diseases and comparative oncology, respectively. *M.M.K.*

Studies of diseases naturally transmitted between vertebrate animals and man are carried out at the Pan American Zoonoses Center, Azul, Argentina.

# The Treatment and Control of Dermatomycoses in the Light of Experiences Gained With Griseofulvin

Ernest I. Grin, M.D.

DETAILED DISTRIBUTION and prevalence of mycotic infections in man are imperfectly known although many of them are endemic or sporadic, and are distributed in widely geographical regions in different parts of the world. The magnitude of the problem is illustrated by the fact that more than 50 human pathogenic or potentially pathogenic fungi are known to exist. Therefore the fungi are being increasingly recognized as important causes of diseases, cutaneous or systemic, and are a significant public health problem.

The most common group of mycotic diseases relate to cutaneous infections caused by dermatophytes, which are widespread in many areas and which produce various clinical manifestations. The diseases in this group are ringworm infections caused by various species of dermatophytes (some of them are cosmopolitan) represented by three genera: *Microsporum*, *Trichophyton*, and *Epidermophyton*. Dermatophytoses are, in general, confined to the superficial keratinized layers of skin and its appendages, hair and nails. Nevertheless they are of major importance, not only because they are widely distributed but because fungal infections can cause great discomfort (Tinea capitis, ringworm of the feet, fungal infections of nails) and sometimes even temporary disability (kerion, severe cases of "athlete's foot"). Available statistics are not adequate but it is evident that hundreds of thousands of children are suffering from ringworm infections of the scalp and that ringworm of the feet in adults afflicts many millions.

*Dr. Grin is Professor of Dermatology and Director, Institute of Dermatovenereology, Sarajevo, Yugoslavia.*

Until recently treatment of dermatophyte infections was confined to mechanical measures and biological or etiological principles of treatment were ignored. These measures mainly were the removal of infected keratinous material such as desquamation, epilation, or removal of infected nails. Topical antifungal agents (such as Whitfield's ointment), roentgen ray epilation, surgical avulsion of infected nails, or similar procedures were used. However, no known externally applied fungicide, although a large number of such remedies have been made available over the years, was apt to penetrate the keratinous structures and to kill the dermatophytes within the hair, nails, or the horny layer of the skin. For these reasons it is obvious that such a therapeutic approach was not at all suitable for controlling dermatophyte infections.

The inability to meet the need for effective treatment and control of dermatophyte infections suggested a different therapeutic approach by which an agent, given systemically, would reach and impregnate the newly produced keratin in the skin and its appendages and prevent the further invasion of the fungi in the new formed keratin. In due course such mechanism would lead to the normal shedding of infected keratinous structures and to eventual elimination of the disease.[1]

A successful step towards this goal was made when griseofulvin was discovered and isolated by Oxford and co-workers in 1939.[2] Griseofulvin is an antibiotic, a metabolic product of various species of *Penicillium (P. griseofulvum, P. janczewskii, P. patulum)* known as "curling factor."[3] It was called the curling

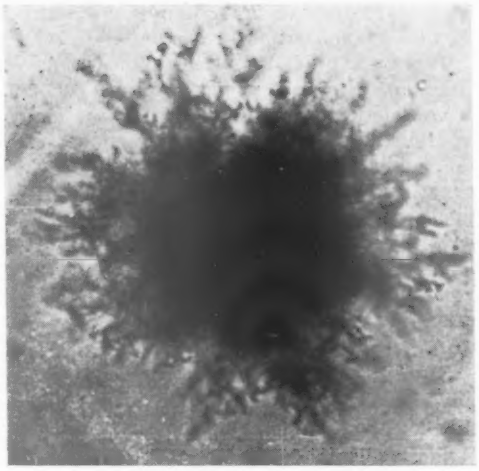


Fig. 1. "Curling" of mycelial filament of *T. violaceum* on Sabouraud medium with addition of griseofulvin.

factor because the fungistatic action of griseofulvin was associated with malformation of the tips of growing hyphae (Fig. 1).

The development and application of griseofulvin in curing dermatophyte infections in man and animals is historically most interesting since this potentially useful drug was ignored for 19 years by the medical profession, despite numerous publications on its efficacy as an agricultural antifungal agent. It remained for I. C. Gentles of the Department of Bacteriology of the University of Glasgow to publish, in 1958, the first observations on griseofulvin as an effective drug by oral administration in ringworm infections *(M. canis, T. mentagrophytes, T. verrucosum)* in animals.[4] Studies on the toxicity of griseofulvin gave early indication that it could be given orally to animals without toxic effects even in large amounts, exceeding curative doses, and it became apparent that griseofulvin promised similar results in human application.

The first trials[5–10] of the treatment of infected human beings by the oral administration of griseofulvin have proved its full therapeutic effectiveness in infections due to various species of dermatophytes. Since then a great number of publications have confirmed the first favorable results, but many of them may be still considered as preliminary reports.

All investigators could demonstrate the clinical value of griseofulvin as highly satisfactory in individual patients infected by dermatophytes. Although there is no clear evidence yet regarding the time-dose relationship in oral administration of griseofulvin to obtain cures in various dermatophyte infections in man, a daily dose of 25 mg./Kg. (1 to 2 Gm. in adults) seems in general to be sufficient in most instances. However, the same dosage at intervals of two to five days has been shown to be equally effective in a high percentage of cases. Even with a single dose of 75 mg./Kg., a high rate of cures could be obtained in tinea capitis caused by some species of dermatophytes, as fast as when multiple doses were administered. Since the effective optimal dosage of griseofulvin is still not definitely established in the treatment of various dermatophyte infections, and as it appears that the therapeutic value of griseofulvin is high, there are a great number of treatment schedules employed by various investigators with apparently the same good results.

The duration of treatment depends mainly on the site of infection and the species of dermatophytes involved: this is, on the average, 3 to 6 weeks for scalp infections, 4 to 6 months for nails (toe nails up to nine months or more), and 3 to 4 weeks for glabrous skin (tinea pedis usually needs prolonged treatment). Local treatment in addition to oral administration of griseofulvin, such as shampooing, clipping the hair, keratolytic and fungicide remedies, and avulsion of the nails, seems to be of great value not only in speeding and securing better results but also from the epidemiological point of view.

It could be demonstrated that the effect of griseofulvin is also influenced by various factors, such as the individual rate of growth of epidermal structures, the individual general and local variability in the absorption and deposition of the drug into the forming keratinous cells, and the variability of sensitivity of different strains of dermatophytes to the antibiotic. All these play a prominent role in approaching the problem of effective treatment and control of ringworm infections through the use of griseofulvin.

Side effects observed in oral administration of curative doses of griseofulvin were mostly minor and reversible: discomfort in the epigastric region, headaches, dizziness, urticaria, and a temporary reduction of the circulating white cells.

In laboratory animals, griseofulvin administered in large doses intravenously or intra-

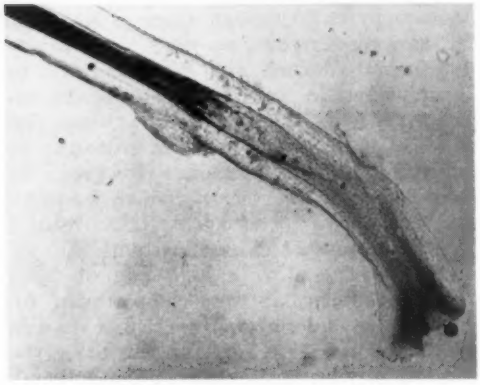


Fig. 2. KOH preparation showing the healthy basal portion of the infected hair *(T. schoenleini)* third day after treatment with griseofulvin (x92).

peritoneally, is able to produce arrest of mitosis in the intestinal wall, the testes, and bone marrow, but by oral administration this toxic effect has not been noticed.

Griseofulvin is a distinctly fungistatic drug and dermatophytes remain viable in contact with it for a long time. The action of griseofulvin is local and no diffusion takes place through the hyphal cells. In oral use griseofulvin is incorporated in the new keratinous structures, which are formed during treatment, producing resistance to attack by dermatophytes but leaving the fungi vital in the previously formed and infected keratinous material. This can be easily demonstrated by direct examination of hair from the affected area in routine KOH mounts. The fungi persist in the upper part of the hair shafts but the basal portions, corresponding in length to the growth of hair during the treatment period, were no longer infected (Fig. 2.).

It is obvious that lack of local procedures, which remove (mechanically) the infected portion of the hair (Fig. 3), especially the fragile endothrix type, the infected nails and scales harboring viable fungi, is capable of producing recurrences or reinfections or of being a source of infection for the environment. Therefore in controlling dermatophyte infections as regards individual cure as well as potential sources of infection to the community, elimination of the reservoir of parasites appears to be essential. It is most probable that individuals who are susceptible to dermatophyte infections are likely to be infected again when re-exposed, as soon as griseofulvin is withdrawn, since the predisposition to fungous infections is not altered by oral administration of the antibiotic.

There are other important epidemiological conditions that have to be taken into account in considering griseofulvin as a potent factor in controlling dermatophyte infections from the public health point of view. So far, no clinical treatment failures (with rare exceptions) in dermatophyte infections are noted when adequately treated with griseofulvin, but the approach to dermatophyte infections as a public health problem in the light of griseofulvin has some aspects that have yet to be explored.

Besides the elimination of the reservoir of infection in the treated individual patients there is the question of the fungus-infected environment either in the form of residual infections in man and animals (or healthy carriers) or in the form of dermatophytes outside the infected organism living as saprophytes in the environment, primarily as inhabitants of the soil.

Among systemic deep mycoses satisfactory results are reported in some cases of sporotrichosis comparable to those obtained with potassium iodide (but not recommended as a substitute in every case). Other systemic mycoses (blastomycosis, actinomycosis, nocardiosis, moniliasis, and cryptococcosis) do not seem to respond favorably to griseofulvin therapy. It has also been shown that griseofulvin failed to control the infection in experimental systemic mycoses in mice.[11]

The high efficacy of griseofulvin for curing ringworm infections in man and animals has already been established. The question is how the drug can be used most effectively in

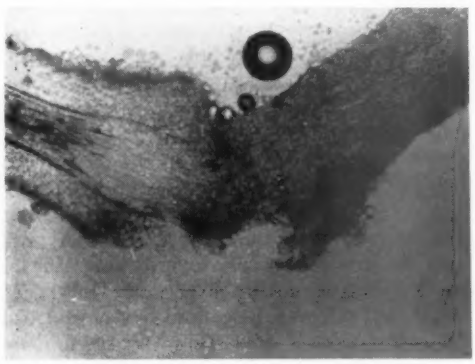


Fig. 3. KOH preparation demonstrating the demarcation between infected fragile part of the hair containing viable fungi and the noninfected part *(T. violaceum)*.

mass campaigns, especially in areas where the disease is highly prevalent or occurs in epidemic or endemic form. Of primary concern is the establishment of a standard treatment schedule practicable for curing individual patients in mass campaigns and for preventing the infection in the exposed part of the population. But it is also necessary to ascertain pertinent epidemiological features of the disease and what additional measures are essential in the oral administration of griseofulvin in order that the prevalence of the disease and its posttreatment incidence in the community can be brought under control to the point where it no longer constitutes a public health problem.

It is not certain whether sensitivity of dermatophytes to griseofulvin in time may diminish the prospect for treatment and control of the infections. Till now there is no conclusive information about resistance of dermatophyte species to griseofulvin, *in vivo*, but their ability to destroy griseofulvin and to develop resistance, *in vitro*, demonstrates a potential mechanism for attaining resistance *in vivo*.

A planned scientific field trial is in progress in Bosnia, assisted by the World Health Organization, for assessing the value of griseofulvin in mass campaigns against dermatophyte infections of the scalp. For this trial an endemic focus was selected in an area comprising five villages with a total population of 7,493 with 409 cases of dermatophyte infections of the scalp (91 per cent had *T. violaceum* infections).

The preliminary results show clearly that control of dermatophyte infections of the scalp by the use of griseofulvin can be looked forward to in a well planned and organized mass campaign.

Today, griseofulvin is certainly the drug of choice in treatment of fungal infections caused by dermatophytes. However, it is quite evident that it is not expected that these conditions can be controlled as a public health problem (and probably even as individual clinical cases) by the drug alone, no matter how effective it may be. There are also additional socioeconomic, prophylactic, and epidemiological measures necessary to achieve and secure complete results in the treatment and control of these infectious diseases.

## REFERENCES


1. Wilson, J. W., in Therapy of fungus diseases, an international symposium, presented June 23-25, 1955, by the Division of Dermatology, Department of Medicine, university extension, University of Calif., at Los Angeles; ed. by Thomas H. Sternberg and Victor D. Newcomer, Boston, Little, Brown & Co., 1955.

2. Oxford, A. E.; Raistrick, H., and Simonart, P.: XXIX. Studies in the biochemistry of micro-organisms. LX. Griseofulvin, $C_{17}H_{17}O_6Cl$, a metabolic product of *Penicillium Griseo-fulvum* Dierckx, Biochem. J. *33*: 240-248, Feb., 1939.

3. Brian, P. W.; Curtis, P. J., Hemming, N.G.: Tr. Brit. Mycol. Soc. *29*: 173, 1946.

4. Gentles, J. C.: Experimental ringworm in guinea pigs; oral treatment with griseofulvin, Nature *182*: 476-477, Aug. 16, 1958.

5. Williams, D. I., and others: Oral treatment of ringworm with griseofulvin, preliminary communication, Lancet *2*: 1212, Dec. 6, 1958.

6. Blank H., and Roth, F. J. Jr.: The treatment of dermatomycoses with orally adminstered griseofulvin, Arch. Dermat. *79*: 259-266, Sept., 1959.

7. Riehl, G.: Wissenschlaftliche Sitzung, Wien. klin. Wchnschr. *71*: 215, 1959.

8. Ajello, L.: Personal communication.

9. Kirk, J., Ajello, L.: Use of griseofulvin in the therapy of tinea capitis in children; preliminary observations, Arch. Dermat. *80*: 259-267, Sept., 1959.

10. Grin, E. I.: New therapy for ringworm of the scalp by oral administration of griseofulvin and its mode of action, Vojnosanit. Pregled, Beograd, *16*: 771, 1959.

11. Emmons C. W.: Failure of griseofulvin to control experimental systemic mycoses in mice, Arch. Dermat. *81*: 700-702, May, 1960.

12. Sulzberger, M. B., and Baer, R. L.: An oral antibiotic for the treatment of many common fungus infections of the skin, hair and nails, Excerpta Medica, Section XIII, Dermatology and Venereology, *13*: 145-149, March, 1959.

13. Griseofulvin and dermatomycoses, an international symposium, Miami, Fla., Oct. 26-27, 1959, Arch. Dermat. *81*: 650-882, May, 1960.


*World Health Day—April 7, 1961*

# The Work of WHO in 1960

*Communicable Diseases.* There was significant progress in 1960 in the various fields related to WHO's vast malaria eradication program. Sixty-one countries or territories are known to be fully engaged in malaria eradication work, and in another 19 the health authorities are on the point of adopting their final plans. In the majority of these countries WHO is giving direct help, advisory services, fellowships and other means of training, and supplies and equipment.

Progress was also registered in the control of other communicable diseases. Efforts to improve the diagnosis, treatment, and prevention of tuberculosis were continued. Results of comparative trials of domiciliary and institutional chemotherapy for tuberculosis, conducted by the Tuberculosis Chemotherapy Centre in Madras, with WHO assistance, confirm that in suitable circumstances domiciliary chemotherapy is by no means inferior to institutional treatment.

The two methods were found to be equally effective as regards improvement after one year of treatment, relapse rate during the second year, and new cases among family contacts.

Satisfactory progress was maintained in the national campaigns for the eradication of yaws, and it is estimated that over the last 10 years half the 200 million people living in yaws-endemic areas have been examined and, where necessary, treated.

Increased incidence both of venereal syphilis and of gonorrhea has been observed in several countries. The fact that attack rates are higher in the lower age groups presents new social problems.

*Veterinary Public Health.* In veterinary public health, main emphasis was on the extension of research on brucellosis, which is still an important cause of disease in certain areas where infected sheep and goats cannot be eliminated for economic reasons. The solution of the problem of rabies also received attention; the reliability and accuracy of the laboratory methods for diagnosing this disease have been much improved in recent years, but more rapid and reliable method of diagnosis in dogs is required, and WHO efforts are directed towards this end.

*Virus Diseases.* The rapid progress in the study of live poliovirus vaccines reported in 1959 was accelerated in 1960. By mid-summer it was estimated that more than 70 million persons had received the vaccines. The largest studies were in the USSR where a strain developed in the United States was administered to 50 million people, with an impressive record of safety and strong indications of efficacy. A meeting of the WHO Expert Committee on Poliomyelitis, in 1960, decided that all strains of the orally administered vaccine had been shown to be safe for administration to children and thus safe for use where poliomyelitis was predominantly a disease of childhood. In areas where polio affects a proportion of adults it was recommended that, for the time being at least, primary vaccination should be continued with the inactivated vaccine and that the oral vaccine should be reserved for the reinforcing dose.

Progress was made towards the eradication of smallpox, but rather slowly. India, where the disease has been endemic and where the highest number of cases has always been reported, is taking energetic measures to organize and develop a national eradication program. Afghanistan, Indonesia, and Pakistan also are intensifying antismallpox campaigns.

In the three years from mid-1957 to mid-1960 the causal agent of trachoma has been isolated in at least 17 laboratories throughout the world. This important break-through, coming after 50 years of negative or inconclusive attempts, has opened up new fields of research in various ways. Assistance was continued to governments in carrying out field propects for the control of trachoma and other eye diseases.

*Environmental Sanitation.* WHO sanitary engineeers and consultants visited countries in all six regions to promote the WHO program for the improvement of community water supplies. Technical help was given to Peru on an important water supply project; a consultant in waterworks design helped the national water authority in Cuba to extend water supplies rapidly; in Ghana a team of experts is helping with the development of the national water supply program and to

set up a water and sewerage board; plans were made to help the Malagasy Republic to organize and execute a national water supply program, especially for the capital, Tananarive.

*Public Health Services.* WHO is advising governments on the planning of public health services sometimes as independent programs, but often as part of a wider scheme of social and economic development in which health, education, agriculture, and other programs are co-ordinated. The demand for nursing services, especially in the developing countries, is continually increasing, and in 1960 WHO provided 163 nurses to 45 countries to help with nurse and midwife training, nursing administration at national and state levels, and as members of teams with public health programs and communicable disease control.

*Health Protection and Promotion.* Considerable progress was made in the large-scale program for the prevention of protein malnutrition in infants and children, which is still the world's most important nutritional problem. This program is being sponsored jointly by the Food and Agricultural Organization (FAO), the United Nations Children's Fund (UNICEF), and WHO, and its chief purpose is the production of cheap and suitable protein-rich foods. The practical results are perhaps most evident in Guatemala, where the Institute of Nutrition of Central America and Panama (INCAP) has developed a mixture of vegetable proteins called "Incaparina," which is well accepted and is being distributed on an increasing scale. In Africa, mixtures of vegetable protein and skim milk are becoming popular, notably in Nigeria and Uganda.

The part WHO can play in assisting work on cardiovascular diseases, particularly research, has become more clearly defined. The Organization's Advisory Committee on Medical Research considered that priorities should be accorded to coronary heart diseases, arterial hypertension, pulmonary heart disease, cardiomyopathies, fundamental research into factors controlling circulation, and research into cardiovascular diseases in animals.

In order to further cancer research a scientific group that met in 1960 indicated, in order of priority, what studies on animal tumors should be undertaken in order to obtain information relevant to the solution of analogous problems in human beings. Some work was also done on the therapy of canine tumors, on the carcinogenicity of food additives, on lung tumors, and soft tissue tumors.

*The Congo.* Distribution of milk donated by the Swiss Government at a school in New Village, Leopoldville.

*Education and Training.* A total of 1,006 fellowships was awarded for the period Dec. 1, 1959, to Aug. 31, 1960. The fellows came from 122 countries and territories; they studied in 83 countries and territories abroad. About 80 per cent were financed from the regular budget, 20 per cent from Technical Assistance funds and 0.5 per cent by UNICEF. The acute shortage of physicians and other fully-trained personnel in the greater part of the world still imposes a high priority on training large numbers of auxiliary workers, and much attention was given to this matter during the year, as well as to medical education and graduate training in public health.

*Radiation and Human Genetics.* WHO's work on ionizing radiation and atomic energy in relation to health is concerned mainly with radiation health, which involves the health problems of the effects of ionizing radiation on man, radiation medicine, or the applications of radiation and radioisotopes in health work and human genetics.

# A Regional Report of the Work WHO in 1960

*Americas.* The health program administered by the Pan American Sanitary Bureau, which acts as Regional Office for WHO in the Americas, continued to increase in scope. The first project in the Americas for the strengthening of national health services was started 10 years ago in El Salvador, and there are now 14 such projects in Latin America.

Environmental sanitation received much attention in integrated health projects. The education and training of professional and technical personnel, the eradication and control of communicable diseases, and medical research also continued to progress. Applied research on malaria and nutrition research, at the Institute of Nutrition of Central America and Panama (INCAP) and at the Institutes of Nutrition in Equador, was pursued. In Guatemala, progress was made with an important field study on the interrelationship of nutrition, infection, and environmental sanitation as they affect the spread and control of diarrheal diseases.

*Eastern Mediterranean.* The control and eradication of communicable diseases continued to absorb more than half the funds available to the region from the WHO regular budget, notwithstanding the increasing attention being given to health needs arising from new community and industrial developments. In work against tuberculosis, as against bilharziasis, trachoma, kala-azar, and other diseases, the need for more information has made it necessary to assist both research and preventive medicine. Nearly a third of the population of the region is now exposed to bilharziasis, and plans for the perennial irrigation of large tracts of land will probably increase this by several more millions. Plans were made for a comprehensive pilot project and training center to be set up in the United Arab Republic, Egypt, with assistance from UNICEF and WHO.

Research on the control of trachoma continued and the work at the Ophthalmological Centre in Tunis—on characterizing local strains of virus, on the systematic screening of antibiotics and other therapeutic agents, and on the development of serological techniques—was important in the general scheme of the research. The causal virus has now been isolated and progress has been made towards the eventual production of vaccine. Meanwhile, the Organization continued to assist with studies in the region on the use of repository sulfonamides as a mass prophylactic measure.

An evaluation of the fellowship program showed that in the period 1949-1959, 1,408 graduate and undergraduate fellowships were awarded, 217 of them in 1959, which figure denotes a satisfactory increase.

Further help was given to improve existing training facilities and to establish institutions for medical education where they are lacking. Projects for the training of auxiliary personnel of various types have continued in Ethiopia, Iraq, Libya, Saudi Arabia, Somalia, and Yemen.

*Southeast Asia.* The health needs of this region are chiefly determined by the large and increasing population, the undeveloped state of most resources, and the resulting low standard of living. There is much preventable illness, in spite of large programs for the control of diseases, such as malaria and yaws.

During the past year WHO continued assistance in environmental sanitation in rural areas. An urban sanitation scheme for increasing the supply of safe water and expanding the drainage system was proposed for Greater Calcutta.

Malaria eradication, the control of yaws, leprosy, and trachoma, BCG vaccination campaigns and the organization of smallpox eradication campaigns figured prominently in the program. Tuberculosis control by domiciliary or ambulatory chemotherapy now offers promising possibilities notably as a result of studies undertaken at the Madras Chemotherapy Centre. Rural health services, which everywhere tend to lag behind in development, were substantially aided. Continued attention was given to maternal and child health and nurse training, notably in co-operation with UNICEF.

# President's Message

Last month the AMWA started a program of expanded membership through pledges.

Discussion at recent Executive Board Meetings had inevitably led to the need for increased membership, and finally the idea of enlisting the aid of all individual members emerged. The pledge can be found on page 320. You, as an active member, are asked to enlist one more qualified woman physician as an AMWA member.

The Executive Board recognizes that the easiest part of the task is signing the pledge. Then the work begins. You will need to explain what our organization means to you, and thus what it can offer to others. And we must all be prepared to fight apathy accompanied by the myriad customary excuses: "belong to too many organizations now," "have to attend too many meetings already," etc.

What does AMWA mean to all of us who are members?

First, it gives us the opportunity to join with our colleagues in considering the common problems and, more important, the common strengths we have as women and as physicians. The sometimes schizophrenic problem of the dual career—profession and family—ranks high on our agenda. But we bring the strength of compassionate understanding of human needs to our work, and we have a broad, community-wide approach to the solution of problems. The AMWA is neither a splinter group nor a feminist movement. We explore and act together to help one another achieve professional goals.

To the young woman medical student the AMWA means the opportunity to receive financial help through scholarship loans. Since 1926, 122 medical students have received loans. This year, for the first time, we have made loans to freshman students who would otherwise not have been able to enter medical school.

To the outside world the AMWA is more and more becoming the professional organization to which young women interested in a medical career can turn for counsel. When certain comments of mine concerning the need for more women in medicine were recently quoted in a nationally syndicated column the response from the general public was most heartening. Our pamphlet, "So You Want to be a Doctor?" has proved highly successful, and further recruitment steps are under study by our Committee on Medical Education and Practice.

The AMWA Library Fund is a truly significant activity. Our purpose is to provide a room in the Women's Medical College of Philadelphia, where the works and memorabilia of women in medicine throughout the world may be housed. Already a total of $50,000 has been raised, but increasing costs prevent our viewing this as the final goal.

Membership in AMWA carries with it, of course, the privilege of receiving THE JOURNAL, whose stimulating articles and special features have proved of great interest to both men and women physicians over the years.

Finally, AMWA membership means the opportunity to join the Medical Women's International Association, with all the broadened horizons that such contacts can bring.

Now, BACK TO THE MEMBERSHIP DRIVE. Act today. Sign the pledge. Prove you are a member who believes that "Membership is Everbody's Business."

Claire F. Ryder M.D. M.P.H.

# Living Portraits*

The fascinating feature of the Sunday evening program at the midyear meeting in Hot Springs, Ark., was a presentation of "Living Portraits." Branches were invited to select for portrayal a notable woman physician, preferably one who had contributed greatly to furthering women in medicine in the branch area, and to choose the physician who would act as the Living Portrait in a costume similar to clothes worn by the person portrayed during her lifetime. The commentator read each vignette, without mentioning the name of the subject.

This is the first in the series to be presented in THE JOURNAL. See page 312 for the name of this month's Living Portrait.

The subject of this portrait was born in New York State in 1829.

In order to teach physiology at a village school in Vermont, she enrolled in the New England Female Medical College in Boston.

She interrupted her training in Boston to serve a year at the New York Infirmary for Women and Children and to visit the Female Medical College of Pennsylvania and its affiliated Woman's Hospital in Philadelphia.

She returned to Boston and graduated with the class of 1863. Any plans she may have entertained for further study abroad were curtailed due to the Civil War, so she heeded the advice given to men of this day and went westward.

In her new location many of her patients were the wives and children of soldiers who were living in poverty. Her work was connected with the U.S. Sanitary Commission.

The need for hospitals was very urgent. With memories of her student experiences, she, with friends, raised funds and selected a house in which the Chicago Hospital for Women and Children was opened in May, 1865.

The small 14-bed hospital was soon expanded and in 1869 moved to larger quarters for the third time. The hospital now had a Board of Directors of outstanding men and women and a consulting staff of physicians of highest professional standing.

The hospital had been named for our portrait. Here she served as head of the Medical and Surgical Service for 30 years.

It is believed that Chicago Medical College admitted its first women students in deference to the war work of our subject. In 1869 three women were enrolled and, our doctor received her M.D. degree in that same year at the age of 41 years, the only woman ever to be given this degree by the Chicago Medical College.

In 1879 steps were taken by our pioneer and some of her prominent associates to found the Woman's Hospital Medical College. Seventeen students enrolled for the first course. Four days after the opening of the second term, a history-making cow brought destruction to the college. The sick and homeless resulting from the catastrophe made emergency facilities imperative. Our doctor and her staff, with the aid of the Relief and Aid Society, set up temporary quarters in barracks and other available buildings.

In 1883 a grant was received from the Relief and Aid Society and a large house with a barn was bought. The house was converted into a hospital for women and the barn into a temporary medical school. Several years later a building in the Medical Center on the west side of the city was acquired and converted into a complete medical college building. In 1890 the three hundred fiftieth woman was graduated from the college. The college was absorbed about this time by the Northwestern University and renamed the Northwestern University Woman's Medical School.

Our distinguished subject became a member of the Chicago Medical Society in 1873, the Illinois Medical Society in 1875, and the AMA in 1886.

After her death in 1895 her work was continued by such physicians as Dr. Lucy Waite and Dr. Bertha Van Hoosen. The hospital is in operation today.

* Presented at the Midyear Meeting of the Board of Directors, AMWA, in Hot Springs, Ark., on Nov. 15, 1959.

# Of Special Interest

## TEEN-AGERS VOLUNTEER FOR HOSPITAL WORK

Some 150,000 teen-agers are making adolescence a time for constructive, purposeful work by serving as junior volunteers in hospital programs all over the country. Popularly known as "candy stripers," after the red and white striped uniforms of the volunteers in the first program at Evanston Hospital in Evanston, Ill., these junior aides perform varied duties, such as: arranging flowers, supervising children's play, reading to patients, preparing occupational and physical therapy material, and acting as escorts. Besides being of value to the hospital staff, the program is a maturing experience for the young volunteer. One Boston teen-ager described her appreciation of the program: "As a junior volunteer I was able to get out of my own little world and meet a much broader world. I was able to feel needed and learned to accept many things. . . . I am grateful to have had this chance of serving others."

## EMERGENCY RADIATION CENTER INSTALLED IN MICHIGAN

The University of Michigan Medical Center has instituted an emergency program to accommodate persons harmed in radiation accidents. Dr. A. C. Kerlikowske, Director of University Hospital, feels that with the increasing use of radioactive substances in research, medicine, and industry, it has become necessary to devise means outside the conventional medical and surgical procedures for handling radiation accidents. Under this program, radiation accident victims are to be classified into two groups—those with physical injuries and those without. Both groups will be tested for evidence of lingering radiation. Samples of blood, sputum, and urine will be tested immediately and checked for several days to discover any signs of radiation effects. Dr. William Beierwaltes will head the clinical radioisotope unit which will direct the basic treatment of patients. Other measures will be to check the patient for residual radiation, to screen all hospital personnel who have come into contact with the patient, and to decontaminate the hospital areas in which the patient has been treated.

## TURKISH WOMEN WIN POLITICAL RIGHTS

Turkey is the thirty-fourth country to ratify or accede to the United Nations Convention on the Political Rights of Women. This Convention entitles women to vote, hold public office, and freely serve in other political capacities on an equal basis with men. (UNESCO)

## PROTEIN SYNTHESIS STUDIED

The mystery veiling the synthesis of proteins may be penetrated by means of the electron microscope. Dr. George E. Palade of the Rockefeller Institute, at a meeting of biochemists at Stanford University, Calif., in January, outlined his study of zymogen granules in pancreatic cells in which he used the electron microscope in an effort to understand enzyme formation and protein synthesis.

After an animal has received an injection of a protein dense with electrons, such as ferritin, the electron microscope is used to observe the passage of this protein into the cells of the animal. Dr. Palade felt that the findings of this study so far seemed to confirm the important role that ribonucleic acid (RNA) plays in synthesizing proteins. The two chief pieces of evidence supporting this view reported Dr. Palade are: (1) that "microsomes," extremely small, intracellular particles which are separated from broken cells by means of a centrifuge, have demonstrated their ability to synthesize proteins, and (2) microsomes possess a high RNA content.

## CITY ALCOHOLISM CLINIC

A clinic for alcoholics in "primary and secondary addiction groups" and for "those individuals who, under stress, drink excessively" is being planned by the New York City Department of Health. It is hoped that the clinic will begin operations within one year.

The advantages of such a clinic to the medical profession are that it will offer opportunities for young physicians to study the clinical aspects of alcoholism and will provide a setting for research into effective ways of rehabilitating young persons addicted to alcohol.

The proposed clinic was reported by Dr. Leona Baumgartner, City Commissioner of Health.

# News of Women in Medicine

Dr. Emily P. Bacon, former chief of the Department of Pediatrics of the Lankenau Hospital in Pennsylvania and currently a member of the emeritus staff of the hospital, received a silver tray in honor of her years of service in the hospital.

Dr. Jeanne C. Bateman of Washington, D. C., was scheduled to be a member of the seminar faculty at the Arizona Division of the American Cancer Society's Ninth annual cancer seminar held in Tucson, Jan. 12-14.

Dr. Katherine R. Boucot, Professor of Preventive Medicine at the Woman's Medical College of Pennsylvania, has been appointed editor of the *Archives of Environmental Health*, a publication of the AMA. Dr. Boucot is the first woman editor of this journal.

Dr. Dorothy Mainland Brown of Catarina, Texas, has been elected secretary-treasurer of the La Salle-Frio-Dimmitt County Medical Society of Texas.

Dr. Mary E. Caldwell is director of a cancer chemotherapy research project under the auspices of the University of Arizona's College of Medicine. This study, already four years old, recently received the Elsa U. Pardu Foundation renewal grant of $4,000. Dr. Caldwell and her colleagues extract antitumor properties in plants of southwestern United States and Mexico and send them to the Cancer Chemotherapy National Service Center in Bethesda, Md., for further examination.

Dr. Marjorie Conrad has been named president-elect of the Delaware Academy of General Practice. Dr. Mildred B. Forman has been elected treasurer of the same organization.

Dr. Edith Cserny has been appointed superintendent of the Huntington State Hospital in West Virginia.

The following women physicians spoke at the 1961 National Health Forum, March 14-16, on "Better Communication for Better Health," at the Waldorf-Astoria Hotel in New York City: Dr. Ruth B. Freeman, Associate Professor of Public Health Administration, Johns Hopkins University School of Hygiene and Public Health; Dr. Leona Baumgartner, Commissioner of the New York City Department of Health; Dr. Elizabeth Munves of New York University School of Home Economics; Dr. Muriel B. Wilbur, Health Consultant, Rhode Island Council of Community Services.

Dr. Luella Klein, Consultant in Obstetrics, and Pediatrics Consultants, Drs. Lillian R. Warnick and Dorothy Jaeger-Lee are now voluntary instructors at the School of Medicine of Emory University, Ga. Dr. Jaeger-Lee was an AMWA scholastic award winner in 1960.

The following women physicians have been made associate members of the American College of Physicians: Dr. Catherine G. Pearson of Pasadena, Calif., and Dr. Marie C. Rosati of Staten Island, N.Y. Dr. Margaret R. Read of Vermilion, Ohio, was elected to fellowship in the college.

Dr. Winea J. Simpson, Maternal Child Health Director of the San Bernadino County Health Department, Calif., has devised an ingenious substitute for tranquilizers and other drugs designed to comfort the emotionally troubled. Using the philosophy of TLC (Tender Loving Care), Dr. Simpson has produced a phonograph record, "TLC-Audio Rx." This record attempts to give solace to the sick by means of Biblical verses with background music. On one side is "Rest for the Night"; on the other side, "Strength for the Day." This painless and inexpensive form of therapy has been tested out at Loma Linda Sanitarium and Hospital in California with favorable results.

Dr. Hilda Jane Walters of Frostburg, Md., has joined the MEDICO group in Haiti where she will practice surgery at the St. Antoine Hospital at Jeremie. In addition, she will help train native medical school graduates to serve as hospital personnel.

# Opportunities for Women in Medicine

## COURSES

*Geriatrics.* The American College of Physicians is sponsoring a postgraduate course entitled, "Problems of Growth and Aging," which will be held April 11-14, 1961, at the Lankenau Hospital Auditorium in Philadelphia. The fee for members is $60; for nonmembers, $80. For information and application forms, write to Edward C. Rosenow, Jr., M.D., Executive Director, The American College of Physicians, 4200 Pine St., Philadelphia 4.

## EXTERNS NEEDED

*Medical Students.* Highland View Hospital in Cleveland is offering externships for the summer months to all qualified medical students. Applicants are eligible if they have completed at least 7 terms of academic work. A daytime externship of 5 days per week would pay $250 per month. A combined day and night externship comprising 5 days per week, 1 in 3 nights, weekends and holidays, would pay $350 per month in addition to room provision. Interested applicants should write to Dr. L. G. Sutherland, Assistant Director, Medical Services, Highland View Hospital, 3901 Ireland Drive, Cleveland 22.

## FELLOWSHIPS

*Medical Education.* The Alan Gregg Travel Fellowship in Medical Education is being offered now for 1962. Applicants must be citizens of the United States, between 30 and 55 years old, and be full-time faculty members of a United States medical school. The deadline for applications is Dec. 15, 1961. For further information, write to the Director, China Medical Board of New York, 30 E. 60th St., New York City 22.

## MEETINGS

*Biological Psychiatry.* The Society for Biological Psychiatry will meet in Atlantic City, N. J., at the Hotel Claridge, June 9-11. Write to Dr. George N. Thompson, Secretary-Treasurer, 2010 Wilshire Blvd., Los Angeles 57, for further details.

*Bronchoesophagology.* Lake Placid, N. Y., will be the site of the meeting of the American Bronchoesephagological Association, Inc., May 23-24. Details may be obtained from Dr. Daniel C. Baker, 903 Park Ave., New York City.

*Cardiology.* The American College of Cardiology will hold a meeting at the Biltmore Hotel in New York City, May 16-20. Information can be obtained from Dr. Philip Reichert, Empire State Bldg., 350 5th Ave., New York City 1.

*Hypertension.* The Symposium on Hypertension: Recent Advances, under the auspices of the Hahnemann Medical College, Philadelphia, is to be held May 4-7, at the College. The topics to be covered are: (1) Natural History of Hypertension; (2) Etiological Mechanisms in Hypertension; (3) Atherosclerosis and Hypertension; (4) Pharmacology of Hypertension—Diuretics, Rauwolfia, Hydralazine, Veratrum, Adrenergic, and Ganglion Blocking Agents; (5) Catecholamine Metabolism; (6) Drugs which affect Catecholamine Metabolism; and (7) Therapeutic Considerations. For further information, write to Albert N. Brest, M.D., Hypertension Unit, Hahnemann Medical College and Hospital, 230 North Broad Street, Philadelphia 2.

*Internal Medicine.* The Eden Roc Hotel in Miami Beach, Fla., will be the meeting place for the American Society of Internal Medicine, May 5-7. Information may be obtained by writing to Mr. G. Tod Bates, Executive Director, 350 Post St., San Francisco 8.

*Medicine.* The American Medical Association will hold its annual meeting in New York City, June 25-30. For further information, write to Dr. F. J. L. Blasingame, Executive Vice-President, 535 N. Dearborn, Chicago 10.

*Mental Deficiency.* The American Association on Mental Deficiency (open to interested persons in related fields) will be meeting at the Netherland-Hilton Hotel, Cincinnati, May 2-6. For details, contact Mr. Neil A. Dayton, Mansfield Training School, Mansfield Depot, Conn.

*Otology*. The American Otological Society, Inc., will meet at the Lake Placid Club, Lake Placid, N. Y., May 26-27. Write to Dr. James A. Moore, 525 E. 68th St., New York City 21.

*Orthopedics*. The American Orthopaedic Association plans to meet at the Ahwahnee in Yosemite, Calif., May 22-25. Information may be obtained from Dr. Lee Ramsay Straub, 535 E. 70th St., New York City 21.

*Plastic Surgery*. The American Association of Plastic Surgeons will convene, May 17-19, at the Commodore Hotel, New York City. For information, write to Dr. Thomas D. Cronin, 6615 Travis St., Houston 25, Texas.

*Psychiatry*. The American Psychiatric Association will meet at the Morrison Hotel in Chicago, May 8-12. For information, write to Dr. C. H. Hardin Branch, 156 Westminster Ave., Salt Lake City 15, Utah.

*Psychiatry*. The third World Congress of Psychiatry will meet in Montreal, Canada, June 4-10. For further information write Alison Groom, McGill University, 1025 Pine Ave. West, Montreal 2.

*Psychoanalysis*. The Annual Meeting of the Academy of Psychoanalysis is to be held at the Hotel La Salle in Chicago on May 6-7. The topic to be discussed is Psychoanalytic Education. Details may be obtained from Joseph H. Marin, M.D., Secretary, The Academy of Psychoanalysis, 125 East 65th St., New York City 21.

*Psychoanalysis*. The American Psychoanalytic Association is scheduled to meet at the Palmer House, Chicago, May 5-8. Information may be obtained from Mrs. Helen Fischer, Executive Secretary, 1 E. 57th St., New York City 22.

*Psychosomatic Medicine*. The American Psychosomatic Society, Inc., will meet at Chalfonte-Haddon Hall in Atlantic City, April 29-30. For information write to Joan K. Erpf, 265 Nassau Road, Roosevelt, N.Y.

*Railway Surgery*. The American Association of Railway Surgeons will meet at the Drake Hotel in Chicago, April 13-15. For further information write to Dr. Carl Y. Werelius, 5800 Stony Island Ave., Chicago 37.

*Rehabilitation*. The fifth Inter-American Conference on Rehabilitation will take place in São Paulo and Rio de Janeiro in June. For information write International Society for the Welfare of Cripples, 701 First Ave., New York City 17.

*Space Medicine*. The thirty-second annual meeting of the Aerospace Medical Association will be held in Chicago, April 24-26. Details can be obtained from Dr. Willion J. Kennard, c/o Washington National Airport, Washington, D.C.

*Thoracic Medicine*. The American Thoracic Society plans to convene May 22-24 at the Netherland-Hilton Hotel in Cincinnati. Obtain details from the Executive Director, Mr. Frank Webster, 1790 Broadway, New York City 19.

*Thoracic Surgery*. The American Association for Thoracic Surgery will meet at the Sheraton Hotel in Philadelphia, April 24-26. Information can be obtained from Dr. Hiram T. Langston, 308 Carondelet Bldg., 7730 Carondelet Ave., St. Louis 5.

*Urology*. The American Urological Association, Inc., will meet in Los Angeles at the Biltmore Hotel, May 22-25. For information, write Mr. William Didusch, Executive Secretary, 1120 N. Charles St., Baltimore 1.

---

*This month's Living Portrait:* Dr. Mary Harris Thompson portrayed by Dr. Katherine W. Wright. (See Page 308.)

# Book Notices

Editor's Note: These reviews represent the individual opinions of the reviewers and not necessarily those of the members of the Editorial Board of THE JOURNAL.

LYMPHOCYTES AND PLASMACYTES IN NUCLEOPROTEIN METABOLISM. *Annals of the New York Academy of Sciences,* Vol. 72. Art 9. By Margaret A. Kelsall and Edward D. Crabb, Department of Biology and Research Service Laboratories, University of Colorado, Boulder, Pp. 43. Price $2.00. The Academy, New York, 1958.

This monograph will be a welcome addition to the literature concerned with functions of lymphocytes and plasmacytes. In the form of a review, the authors present results of their own research, carried on over a period of 12 years, as well as reports of other workers in this field.

To many physicians lymphocytes are small white blood cells which they, as interns, counted as part of the blood study. Plasmacytes were rarely seen, and were even more of a mystery. The functions of these cells were never too well understood by the student physician of my day.

The authors present their own opinions, as well as arguments pro and con. One hundred and eighty-three references are appended, thus enabling the reader to follow points of special interest.

The monograph is bound in fairly heavy paper stock, and the print is easy to the eye. The exposition is clear and concise. It is a pleasure to recommend this book to all physicians and especially to medical students.

*—Léon E. Mermod, M.D.*

THE MAGIC YEARS. By Selma H. Fraiberg. Associate Professor of Social Casework, School of Social Work, Tulane University, New Orleans. Pp. 305. Price $3.95. Charles Scribner's Sons, New York, 1959.

"The Magic Years," written by Selma Fraiberg, an experienced therapist in problems related to children, is a much needed contribution to professional and lay readers interested in this most important period of childhood, viz., 0 to 6 years. The book written in an easy, readable style, geared to young parents in order to give them an understanding of the psychological, emotional, and intellectual development that their child is undergoing, and thus in understanding these processes to be better able to deal with the problems of childhood, such as fears and anxieties, toilet training, sex education, discipline, and the Oedipal situation.

The book is divided into three main periods: (1) the first 18 months, (2) 18 months to 3 years, and (3) 3 to 6 years, with an opening chapter for orientation and a concluding one for philosophizing. Although specific problems are discussed, there are no "pat" answers given, but rather, through the education of the parent into the unknown realms of what is going on emotionally in each period of development, one becomes better able to handle these situations. Psychoanalytic theory has been digested and made palatable for the average adult by means of a conservative and rational approach, and using our everyday, understandable vocabulary.

Without using the terms themselves, the id drives and the development of the ego and superego are described, the Oedipal phase becomes understandable, and the baby passes through the oral and anal periods of adjustment.

One will benefit from reading this book, and I believe all physicians dealing with children and parents and their problems should not only read it but use it as a reference in their own approach in advising parents in these situational dilemmas.

*—Ruth V. Berney, M.D.*

PHOTOGRAPHY IN MEDICINE. By Arthur Smialowski, Director, Department of Photography. St. Michael's Hospital, Toronto, Canada; and Donald J. Currie, M.D., M.Sc., F.R.C.S.E., F.R.C.S. (C), D.S., F.A.C.S., Pp. 330. Price $14.50 (with illustrations). Charles C Thomas, Springfield, Ill., 1960.

This fine textbook fills a need in an area that has been greatly neglected. It is a complete coverage of the subject of medical photography from the setting up of a medical photography department to the completed print.

Cameras, films, lighting, copying, photomicrography, and print materials are discussed.

Special areas in medical photography—the operating room, the laboratory, the post mortem examination room, and the various specialty departments—are all covered with respect to the proper methods of photography. Special techniques for photographing the breast, the eyes, the genitalia, and other parts of the body are given in detail.

For anyone interested or actually involved in medical photography, this book is a must.

*—Christine E. Haycock, M.D.*

RELEASE FROM SEXUAL TENSIONS; Toward an Understanding of Their Causes and Effects in Marriage. By Mary Steichen Calderone, M.D., M.S.P.H., and Phyllis and Robert Goldman. Foreword by Robert Laidlaw, M.D., M.S.P.H. Pp 239. Price $4.95. Random House, New York, 1960.

The demands upon the average physician for premarital and marital counseling are large and are increasing. Dr. Calderone carries us through the gamut of questions asked not only by her own patients but by those seen by each of us. Can our answers be as frank and understanding?

She dwells on the normal while explaining the background of childhood impressions, cultural variations and physiologic stresses that may result in sexual tensions. The book includes chapters on current attitudes toward sex, physical aspects of sexual tension, jealousy and hostility as causes of tension, sex fulfillment in marriage, sexual aspects of divorce, separation, and widowhood, sex in old age, and much more.

Dr. Calderone has drawn upon her experience as medical director of the Planned Parenthood Federation of America to produce a book that will serve not only as a guide for counselors in this field but one that can be put into the hands of mature men and women to serve as guideposts toward an optimal marriage adjustment.

*—Jessie Laird Brodie, M.D*

WOMEN AND FATIGUE; A Woman Doctor's Answer. By Marion Hilliard, M.D., Formerly Chief of Obstetrics and Gynecology at Women's College Hospital, Toronto. Pp. 170. Price $2.95. Doubleday and Company, Inc., Garden City, New York, 1960.

"Women and Fatigue," published after the untimely death of Dr. Marion Hilliard on July 15, 1958, can be considered her work, having been compiled from notes and an outline prepared by her.

Dr. Hilliard is said to have liked a cause and, in her own words: "My cause is what this book is about, helping women to understand what I have come to believe is their greatest enemy, fatigue." She felt that helping women overcome this scourge, which makes them enemies of themselves and unacceptable members of society, was more rewarding than saving a life by an operation.

The many roles of a woman's life in our society contribute to fatigue; and loneliness and frustration add to the tiredness that may lead to apathy. These are the difficult factors to track down. Family background, the inherited characteristics, "stress history", and the time element are of importance to the doctor treating fatigue.

Fatigue following accomplishment "whether the process has been pleasant or unpleasant, should be enjoyed." It is the accumulated fatigue, which cannot be dispelled by normal rest, that creates trouble. Dr. Hilliard prescribed change of pace—either slowing down or speeding up may help.

Her greatest problem with women patients was that they did not understand themselves. They did not understand their metabolic patterns or the stress factors enough to adapt themselves happily to their time of life and their day to day life. Learning our own limits is the beginning of wisdom. The woman with a nagging fatigue or an exhaustion due to overwork needs help to recover her self-respect. She needs to look at the life she is living with a more objective eye.

In succeeding chapters Dr. Hilliard deals with the three important periods in a woman's life: adolescence, pregnancy, and menopause, each of which creates its own peculiar form of fatigue mainly caused by her physical make-up. She details causes of fatigue in these various states and outlines patterns of behavior that will lessen the fatigue.

Writing about teen-agers and the practice of going steady, Dr. Hilliard says, "A person this young must let go of the feeling of being important to only one person." There will come a time when one person becomes all important, "but it cannot happen and survive at fifteen."

A bit of pithy advice for each of us is to be found in her comment. "There is no tiredness quite like the fatique that comes from fighting age . . . the thing we really ought to fear and combat about age is its rigidity."

The book is medically accurate having been checked at her request by her brother, Dr. Irwin M. Hilliard, F.R.C.P. (C), Professor of Medicine, University of Saskatchewan, Canada, who also acted as consultant on the physiological aspects of fatigue.

This book is not intended for physicians but for the patient who asks, "But doctor, why am I so tired?"

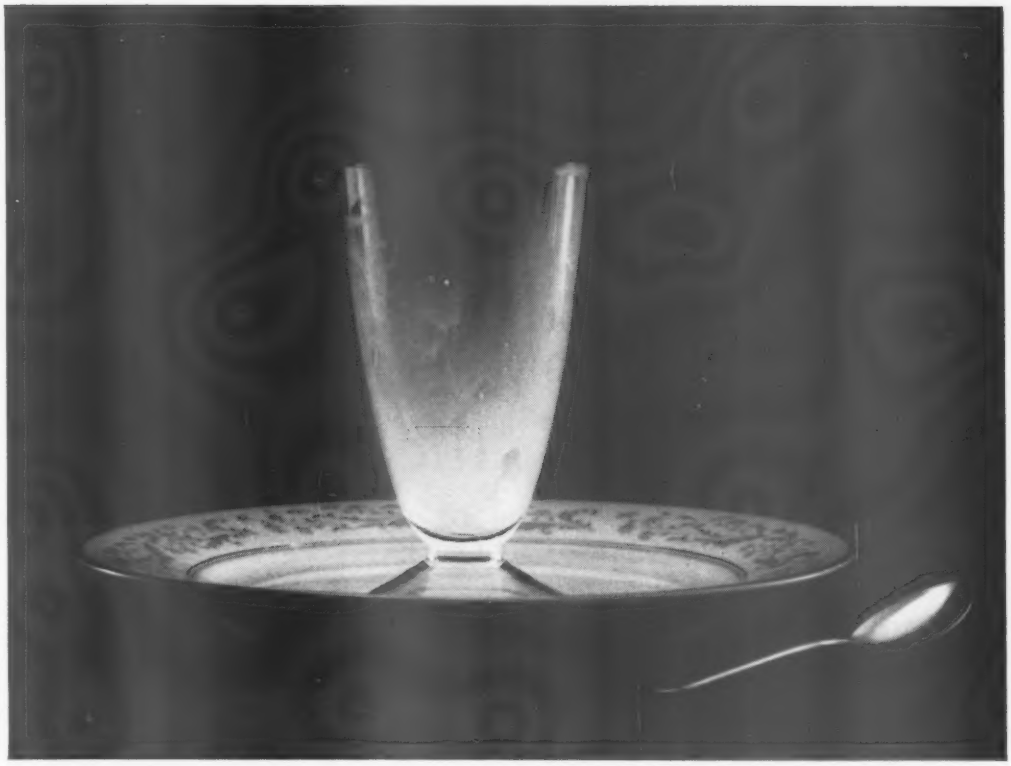
*—Mrs. Lillian T. Majally*

---

## AMWA Meetings—1961

*Interim Meeting:* June 22-24, Hotel Delmonico, Park Avenue at 59th Street, New York City.

*Annual Meeting:* Nov. 30-Dec. 2, Somerset Inn, Shaker Heights, Ohio.



# does the bowel take kindly to no-bulk diets?

The bowel, designed to operate best under the stimulus of a bolus of waste, is seldom at rest under normal conditions. But the new bulkless liquid diets which have taken the country by storm, although they may be a useful road to weight loss, may also lead to constipation or bowel irregularities.

Metamucil adds a soft, bland bulk to the bowel contents to stimulate normal peristalsis and also retain water within the stools to keep them soft and easy to pass. Thus Metamucil, with an adequate water intake, will avert or correct constipation in the dieting patient. Metamucil also promotes regularity through "smoothage" in all types of constipation.

SEARLE

**Metamucil®**

*brand of psyllium hydrophilic mucilloid*

Available as Metamucil powder in 4, 8 and 16 oz. cans, or as the new lemon-flavored Instant Mix Metamucil in cartons of 16 or 30 measured-dose packets.

effective
therapy
in the
critical
pH
zone

# Massengill® Powder

***The buffered acid vaginal douche with low surface tension***

The normal pH of the vagina (3—4.5) inhibits the growth of most pathogens, but several factors such as menstruation and vaginal infections may cause the vaginal pH to rise . . . thus promoting greater growth of pathogens.

A simple acid douche will restore normal vaginal pH, but it is quickly neutralized by the alkaline mucosa and pH rises again. An effective therapeutic agent must be *buffered* to maintain the pH for several hours and must also be able to *penetrate* the folds of the vaginal mucosa for effective cleansing.

**FORMULA:** Ammonium Alum, Boric Acid, Phenol, Eucalyptol, Berberine, Menthol, Thymol and Methyl Salicylate.

A Massengill Powder douche

provides effective therapy

because it:

**1 RESISTS NEUTRALIZING**

The *buffered* acid douche solution of Massengill Powder (pH 3.5-4.5) resists neutralizing. And this normal, low pH is maintained for 4 to 6 hours in ambulant patients . . . and as long as 24 hours in recumbent patients.

**2 INHIBITS PROPAGATION OF PATHOGENS**

Low pH of Massengill Powder solution inhibits propagation of monilia, trichomonas vaginalis and pathogenic bacteria while simultaneously promoting growth of beneficial Döderlein bacilli.

**3 PENETRATES VAGINAL MUCOSAL FOLDS**

Low surface tension of Massengill Powder solution is 50 dynes/cm. (vinegar is 72 dynes/cm.). This enables it to penetrate and cleanse folds of the vaginal mucosa. And this low surface tension makes cell walls of infecting organisms more susceptible to therapy.

**4 WON'T DEVELOP RESISTANT STRAINS**

Because normal pH is restored, normal environment is created . . . pathogens can't thrive . . . resistant strains can't develop as with antibiotics.

**5 IS ACCEPTABLE TO PATIENTS**

Clean, refreshing fragrance of Massengill Powder is acceptable to the most fastidious. Solutions are easily prepared, convenient to use, nonstaining . . . also mildly astringent and soothing to inflamed mucosa.

*Write for samples and literature*

THE S. E. MASSENGILL COMPANY
BRISTOL, TENNESSEE
KANSAS CITY • NEW YORK • SAN FRANCISCO

## in Gynecologic Bleeding

# Control hemorrhage promptly & safely

# with "PREMARIN" INTRAVENOUS

the physiologic hemostat

Rapid control of functional uterine bleeding with "Premarin" Intravenous is especially valuable in the exsanguinated patient and in young girls when curettage is not feasible.[1] "The acutely hemorrhaging patient can also be benefited by intravenously administered estrogen, no matter what the underlying cause, by preventing further shock and tiding the patient over... ."[2]

Over 1,500,000 "Premarin" Intravenous injections have been given to date without a single report of toxicity — to control spontaneous hemorrhage, and to minimize blood loss during and after surgery.

"Premarin"® Intravenous (conjugated estrogens, equine) package contains one "Secule"® providing 20 mg., and one 5 cc. vial sterile diluent. (Dosage may be administered intramuscularly to small children.)

1. Randall, L. M. 2. Reich, W. J., Rubenstein, M. W., Nechtow, M. J., and Reich, J. B. (literature available on request).

AYERST LABORATORIES
New York 16, N. Y. Montreal, Canada

6019

# In omne le mundo

## le evidentia favora

# Furoxone®

brand of furazolidone

## pro le diarrheas bacterial*

• allevia promptemente le symptomas • succede ubi alteres falle contra le crescentemente prevalente racias refractori de Staphylococcus, Escherichia, Salmonella, e Shigella • bactericida plus tosto que bacteriostatic • effectos lateral negligibile • non incoragia excessos del crescentia monilial o staphylococcal • non ha inducite significative resistentia bacterial

*That world-wide evidence favors FUROXONE for bacterial diarrheas is quickly conveyed by this advertisement in "Interlingua"—the international language which celebrates in 1961 the tenth anniversary of its introduction. Based on the languages of Western culture and comprehensible on sight to most professionally trained scientists, Interlingua is designed primarily for written communication and makes no attempt to replace existing national tongues.

At present, the greatest use of this tool of international communication is in medical literature. Twenty-four journals, including the J.A.M.A., regularly carry Interlingua summaries of original contributions. Eight International Congresses have provided Interlingua summaries of papers presented. *To test your own comprehension of Interlingua, turn the page.*

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, NEW YORK

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1960-1961

(Continued from Page 280)

### TWENTY-FOUR, KANSAS

*President:* Mary T. Glassen, M.D., Phillipsburg.
*Secretary:* Ruth P. Spiegel, M.D., Formosa.
Next meeting will be held on call.

### TWENTY-FIVE, PHILADELPHIA, PENNSYLVANIA

*President:* Emily Van Loon, M.D., 1930 Chestnut St., Philadelphia, Pa.
*Secretary:* Margaret Gray Wood, M.D., 6386 Church Road, Philadelphia 31.
Meetings held three times a year.

### TWENTY-SIX, MINNESOTA

*President:* Della G. Drips, M.D., Oronoco.
*Secretary:* Nellie N. Barsness, M.D., 540 Lowry Medical Arts Bldg., St. Paul.

### TWENTY-NINE, ATLANTA, GEORGIA

*President:* Dorothy Brinsfield, M.D., 1123 Gordon St., S.W., Atlanta 10.
*Secretary:* Shirley L. Rivers, M.D., Veterans Administration Hospital, 4158 Peachtree Rd., Atlanta 19.
*Membership Chairman:* Dorothy Jaeger-Lee, M.D., 3825 Wieuca Rd., N.W., Atlanta 5.
Meetings held third Thursday monthly, except June, July, and August.

### THIRTY, UPPER CALIFORNIA

*President:* Ruth Fleming, M.D., 490 Post St., San Francisco.
*Secretary:* Claire Klausner, M.D., Stanford University Hospital, Clay and Webster streets, San Francisco 15.

### THIRTY-ONE, MISSISSIPPI

*President:* Blanche Lockard, M.D., 838 Lakeland Drive, Jackson.
*Secretary:* Julia H. Box, M.D., Newton.
*Membership Chairman:* Gussie R. Higgins Carr, M.D., 416 Claiborne Ave., Jackson.

### THIRTY-TWO, WESTERN NORTH CAROLINA

*President:* Ethel Brownsberger, M.D., 75 Hendersonville Rd., Biltmore.
*Secretary:* Louise Galloway, M.D., 25 Arthur Rd., W. Asheville.

### THIRTY-THREE, MIAMI, FLORIDA

*President:* Ella M. Hediger, M.D., 560 N.E. 71st St., Miami.
*Secretary:* Malissa Browning, M.D., 158 Almeria Ave., Coral Gables, Fla.

*(Continued on Page 323)*

# American Medical Women's Association, Inc.

## MEMBERSHIP IS EVERYBODY'S BUSINESS

The purposes of the AMWA are: to further the art and science of medicine; to promote interests common to women physicians and the public; to aid and encourage premedical, medical, and postgraduate medical students; to foster medical relief projects; and to co-operate with other organizations having comparable interests.

I, as a member of the American Medical Women's Association, hereby pledge to personally enroll one new member of the Association during 1961, as part of the national goal of at least 1,001 new members, in the belief that

MEMBERSHIP IS MY BUSINESS

AMERICAN MEDICAL WOMEN'S ASSOCIATION 1915

.....
*Signature*

Member of Branch No. _____
Member at Large _____

.....
*Address*

Fill out and return to: AMWA, 1790 Broadway—Room 315, New York City 19

# In Egypt and England
# Mexico and Missouri
# India and South Africa

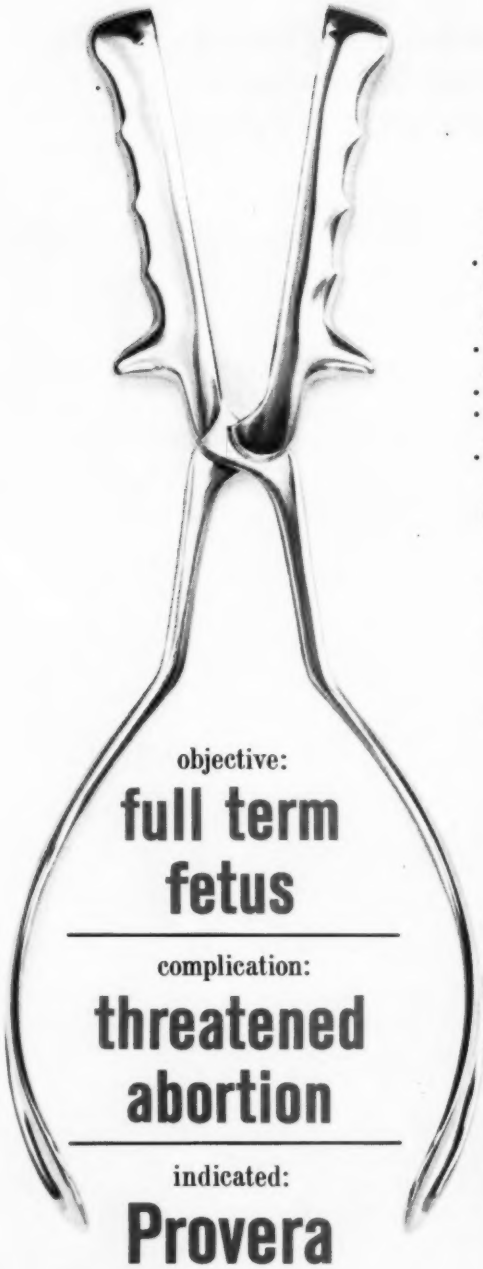
## evidence favors
# Furoxone®
brand of furazolidone
## for bacterial diarrheas*

• swiftly relieves symptoms • succeeds where others fail against increasingly prevalent refractory strains of Staphylococcus, Escherichia, Salmonella and Shigella • bactericidal rather than bacteriostatic • side effects negligible • does not encourage monilial or staphylococcal overgrowth • has not induced significant bacterial resistance

**Furoxone Liquid:** a pleasant orange-mint flavored suspension containing Furoxone 50 mg. per 15 cc., with kaolin and pectin, bottles of 240 cc.
**Furoxone Tablets:** 100 mg., scored, bottles of 20 and 100.
**Dosage:** Adults, 100 mg. q.i.d.; children, 5 mg./Kg./day divided in four doses.

*International bibliography available on request.

® EATON LABORATORIES
Division of The Norwich Pharmacal Company
NORWICH, NEW YORK



objective:

**full term fetus**

complication:

**threatened abortion**

indicated:

**Provera**

**Upjohn**

## Here are five reasons why:

- Provera is the only commercially-available oral progestational agent that will maintain pregnancy in critical tests in ovariectomized animals.
- It is four times as potent (by castrate assay) as any other progestational agent.
- No significant side effects have been encountered.
- It is available for both oral and parenteral administration
- Provera gives the economy of effective action from small doses.

### Brief Basic Information

| | Oral Provera* | I.M. Depo-Provera** |
|---|---|---|
| **Description** | Upjohn brand of medroxyprogesterone acetate. | Aqueous suspension, 50 mg. Provera per cc., for intramuscular injection only. |
| **Indications** | Threatened and habitual abortion, infertility, dysmenorrhea, secondary amenorrhea, premenstrual tension, functional uterine bleeding. | Threatened and habitual abortion, endometriosis. |
| **Dosage** Threatened abortion | 10 to 30 mg. daily until acute symptoms subside. | 50 mg. I. M. daily while symptoms are present, followed by 50 mg. weekly through 1st trimester, or until fetal viability is evident. |
| Habitual abortion 1st trim. | 10 mg. daily. | 50 mg. I.M. weekly. |
| 2nd trim. | 20 mg. daily. | 100 mg. I.M. q. 2 wks. |
| 3rd trim. | 40 mg. daily, through 8th month. | 100 mg. I.M. q. 2 wks. through 8th month. |
| **Supplied:** | 2.5 mg. scored, pink tablets, bottles of 25; 10 mg. scored, white tablets, bottles of 25 and 100. | Sterile aqueous suspension for intramuscular use only. 50 mg. per cc., in 1 cc. and 5 cc. vials.† |

**Precautions:** Clinically, Provera is well tolerated. No significant untoward effects have been reported. Animal studies show that Provera possesses adrenocorticoid-like activity. While such adrenocorticoid action has not been observed in human subjects, patients receiving large doses of Provera continuously for prolonged periods should be observed closely. Likewise, large doses of Provera have been found to produce some instances of female fetal masculinization in animals. Although this has not occurred in human beings, the possibility of such an effect, particularly with large doses over a long period of time, should be considered.

Provera, administered alone or in combination with estrogens, should not be employed in patients with abnormal uterine bleeding until a definite diagnosis has been established and the possibility of genital malignancy has been eliminated.

†Each cc. of Depo-Provera contains: Medroxyprogesterone acetate, 50 mg.; Polyethylene glycol 4000, 28.8 mg.; Polysorbate 80, 1.92 mg.; Sodium chloride, 8.65 mg.; Methylparaben, 1.73 mg.; Propylparaben, 0.19 mg.; Water for injection, q.s.

The Upjohn Company, Kalamazoo, Michigan

*TRADEMARK. REG. U.S. PAT. OFF. **TRADEMARK

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1960-1961

(Continued from Page 320)

### THIRTY-FOUR, ARKANSAS

*President:* Elizabeth D. Fletcher, M.D., 705 Donoghey Bldg., Little Rock.
*Secretary:* Martha M. Brown, M.D., State Hospital. Little Rock.

### THIRTY-FIVE, PUERTO RICO

*President:* María I. Robert de Ramírez de Arellano, M.D., 312 Professional Bldg., Santurce.
*Secretary:* Lydia G. Montalvo, M.D., P.O. Box 1786 U.P.R., Rio Piedras.

### THIRTY-SIX, ALAMEDA COUNTY, CALIFORNIA

*President:* Miriam Rutherford, M.D., 2929 Summit St., Oakland.
*Secretary:* Dorothy McDonald, M.D., 2490 Channing Way, Berkeley.

### THIRTY-SEVEN, SEATTLE, WASHINGTON

*President:* Bernice Sachs, M.D., 200 15th Ave. North, Seattle.
*Secretary:* Evelyn Harris, M.D., 200 15th Ave. North, Seattle.

### THIRTY-EIGHT, LONG BEACH, CALIFORNIA

*President:* Phyllis Walker, M.D., 1703 Termino Ave., Long Beach.
*Secretary:* Geraldine Stramski, M.D., 1777 Bellflower Blvd., Long Beach.

### THIRTY-NINE, BOSTON, MASSACHUSETTS

*President:* Emma V. Merola, M.D., 114 Church St., Waltham 54, Mass.
*Secretary:* Esther Silveus, M.D., 63 Bay State Rd., Boston.
*Membership Chairman:* Dera Kinsey, M.D., 134 Wellesley St., Weston, Mass.

### FORTY, DALLAS, TEXAS

*President:* Harriet Nora Rogers, M.D., Courthouse. Dallas.
*Secretary:* Mary Agnes Hopkins, M.D., 1035 Medical Arts Bldg., Dallas.

### FORTY-ONE, SOUTHEAST VIRGINIA

*President:* Hertha Riese, M.D., Route 2, Box 397, Glen Allen.
*Secretary:* Maysville Owens Page, M.D., 2904 Rugby Rd., Richmond.

### FORTY-TWO, HOUSTON, TEXAS

*President:* Benjy F. Brooks, M.D., 1506 Medical Towers, Houston 25.
*Secretary:* Karin Aileen Petri, M.D., 4119 Montrose Blvd., Houston.

### FORTY-THREE, THE ALAMO, SAN ANTONIO, TEXAS

*President:* Normabelle H. Conroy, 519 Beesley Drive, San Antonio.
*Secretary:* Eva Foti, 547 Timberland Drive, San Antonio.
*Membership Chairman:* Pearl Zink, M.D., 615 Medical Arts Bldg., San Antonio.

### FORTY-FOUR, MARICOPA, PHOENIX, ARIZONA

*Presiaent:* Zdenka Hurianek, M.D., 4115 N. 10th, Phoenix.
*Secretary:* Helen Davis, M.D., 3337 E. Mitchell Drive, San Antonio, Phoenix.

### FORTY-FIVE, TUCSON, ARIZONA

*President:* Virginia C. Van Meter, M.D., 3365 E. Second, Tucson.

### FORTY-SIX, UTAH

*President:* Johanna Dieckman, M.D., 868 Second Ave., Salt Lake City.

### FORTY-SEVEN, COLORADO

*President:* Thelma Perozzi, M.D., 1140 Elm St., Denver 20.
*Secretary:* Maryethel Meyer, M.D., 1677 Wadsworth Ave., Lakewood.

### FORTY-EIGHT, NORTHWEST INDIANA

*President:* Dorothy Ruth Darling, M.D., 807 Fayette St., Gary.
*Secretary:* Ellen K. Cohen, M.D., Hebron.

### FORTY-NINE, KENTUCKY

*President:* Peggy Howard, M.D., 2116 Edgehill Rd., Louisville.
*Secretary:* Letitia Kimsey, M.D., 101 W. Chestnut St., Louisville.

### FIFTY, BROWARD COUNTY (FORT LAUDERDALE), FLORIDA

*President:* Anne L. Hendrichs, M.D., 2925 Poinsettia St., Fort Lauderdale.
*Secretary:* Garland Johnson, M.D., 401 S.E. 25th Ave., Apt. 402, Fort Lauderdale.

### FIFTY-ONE, AUGUSTA, GEORGIA

*President:* Martha S. McCranie, M.D., 742 Lancaster Rd., Augusta.
*Secretary:* Billie La Motte, M.D., Medical Building, Fifteenth Street, Augusta.

### FIFTY-THREE, WESTERN VIRGINIA

*President:* Catherine W. R. Smith, M.D., Box 308, Abingdon.
*Secretary:* Rose Marie Morecock, M.D., 2729 Northview Drive, Roanoke.

### FIFTY-FOUR, ALASKA

*President:* Gloria K. Park, M.D., 2502 E. 20th, Anchorage.
*Secretary:* Yurn Ock Dunn, M.D., 1221 15th Ave., Anchorage.

**Please report all changes in Branch officers and chairmen as soon as possible to American Medical Women's Association, 1790 Broadway, New York 19, N.Y.**

# *uncomplicated*

## *prevention of "next-morning sickness" with a single bedtime dose*

# Bonine®

BRAND OF MECLIZINE HYDROCHLORIDE

a record of effectiveness, excellent toleration, and economy

IN BRIEF

BONINE (meclizine hydrochloride) is the dihydrochloride of 1-*p*-chlorobenzhydryl-4-*m*-methylbenzylpiperazine, an antihistaminic-anticholinergic compound for prevention and relief of nausea and vomiting due to a variety of causes.

INDICATIONS: Valuable in the symptomatic relief of nausea and vomiting of pregnancy. Also indicated for motion sickness, radiation sickness, vertigo associated with Ménière's syndrome, labyrinthitis, fenestration procedures, vestibular dysfunction, and dizziness associated with cerebral arteriosclerosis.

ADMINISTRATION AND DOSAGE: For control of nausea and vomiting of pregnancy, a single dose of 25 to 50 mg. at bedtime is usually effective. For dosage schedules in other indications, see package insert.

SIDE EFFECTS: *Not* a phenothiazine, the side effects reported in association with BONINE have been uncomplicated, mild and/or transient and consist of occasional drowsiness, dryness of the mouth, and blurred vision. There are no known contraindications to BONINE.

PRECAUTIONS: As with other antihistaminic compounds, the physician should inform patients of the need for caution in driving a car or when engaged in other activities requiring alertness.

SUPPLIED: BONINE Tablets, scored, tasteless, 25 mg. BONINE Chewing Tablets, mint-flavored, 25 mg. BONINE Elixir, cherry-flavored, 12.5 mg. per teaspoonful (5 cc.).

*only rarely does one drug meet so well the needs of one condition*

*More detailed professional information available on request.*

PFIZER LABORATORIES *Division, Chas. Pfizer & Co., Inc. Brooklyn 6, N.Y. / Science for the world's well-being™* Pfizer

# *Iron utilization improves her picture*

Iron utilization depends principally upon the rate of erythropoiesis[1,2] which, in turn, is controlled by the hormone, erythropoietin.[3,4] Cobalt is the only clinically proved agent which enhances the formation of erythropoietin[5,6] ...providing a rational physiologic approach to the treatment of anemia. □ RONCOVITE-MF, through cobalt-created erythropoietin, produces a more rapid and complete red blood cell and hemoglobin response in iron deficiency anemia of pregnancy.[7-9] Typically, in a study of pregnant patients, "... utilization of orally administered iron was increased roughly twofold by the simultaneous administration of cobalt."[7]

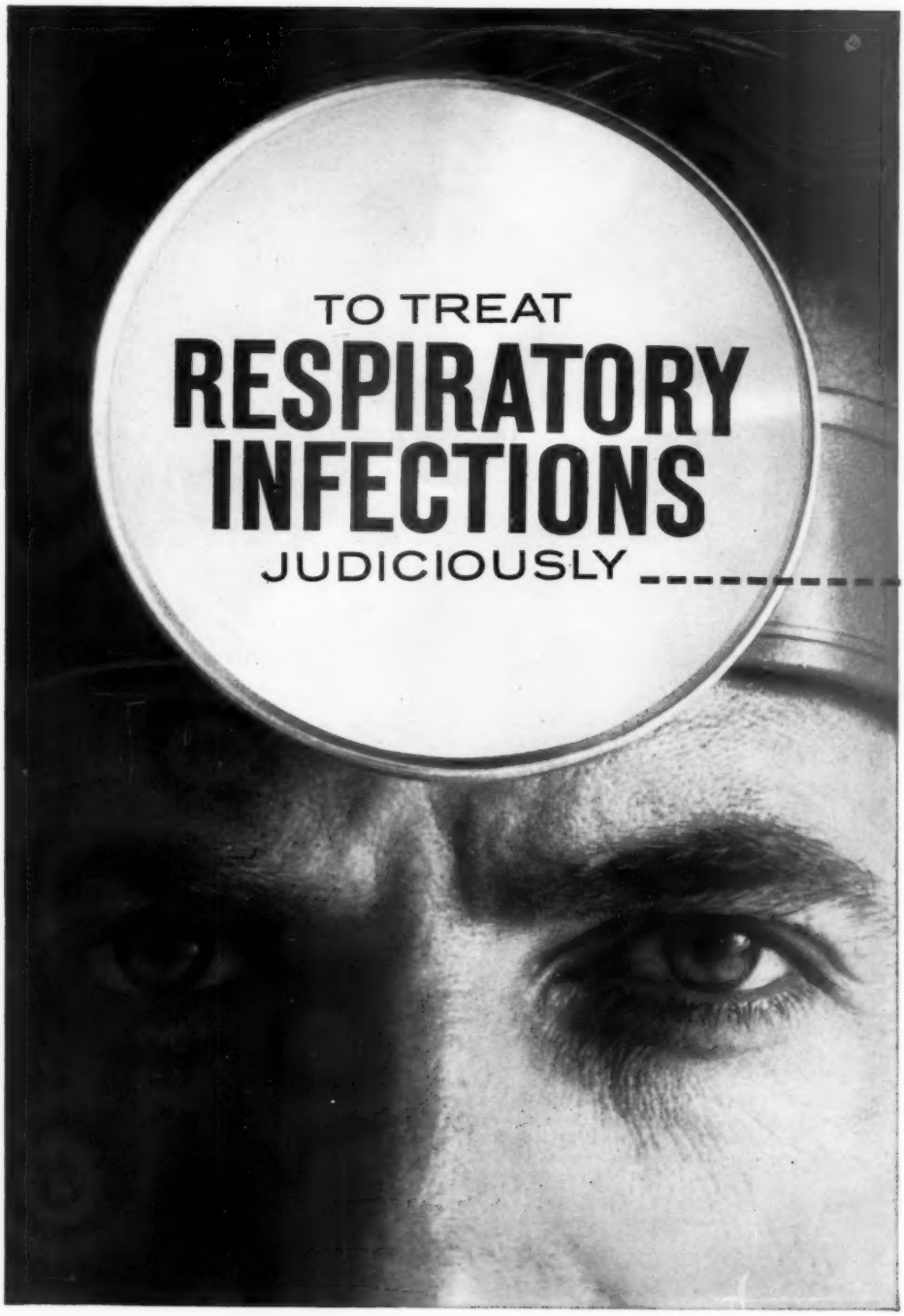
Each tablet contains: cobalt chloride (cobalt as Co, 3.7 mg.) 15 mg. and ferrous sulfate, exsiccated, 100 mg.

**RONCOVITE®-mf**

(1) Bothwell, T. H.; Pirzio-Biroli, G., and Finch, C. A.: J. Lab. & Clin. Med. 51:24, 1958. (2) Beutler, E., and Buttenwieser, E.: J. Lab. & Clin. Med. 55:274, 1960. (3) Gordon, A. S.: Physiol. Rev. 39:1, 1959. (4) Rosse, W. F., and Gurney, C. W.: J. Lab. & Clin. Med. 53:446, 1959. (5) Goldwasser, E.; Jacobson, L. O.; Fried, W., and Plzak, L. F.: Blood 13:55, 1958. (6) Murdock, H. R., Jr.: J. Am. Pharm. A. (Scient. Ed.) 48:140, 1959. (7) Center, W. M.: Clin. Med. 7:713, 1960. (8) Craig, P. E.: Clin. Med. 6:597, 1959. (9) Holly, R. G.: Clin. Obst. & Gynec. 1:15, 1958.

LLOYD BROTHERS, INC.
Cincinnati 29, Ohio

Y-006-61 104-R


TO TREAT
RESPIRATORY
INFECTIONS
JUDICIOUSLY

When it's penicillin-susceptible
and the patient is not allergic
**Use an orally maximal penicillin**

# MAXIPEN®

potassium phenethicillin

Consistent dependable therapeutic response through maximal absorption, maximal serum concentration and longer duration of inhibitory antibiotic levels for less susceptible organisms.

Available as Maxipen Tablets, 125 mg. and 250 mg.; Maxipen for Oral Solution, 125 mg. per 5 cc. of reconstituted liquid.

*Literature on request*

---

**or**

---

When you hesitate to use penicillin
(eg. possible bacterial resistance or allergic patient)

**You can count on**

# TAO®

triacetyloleandomycin

*Extends* the Gram-positive spectrum of usefulness to include many staphylococci resistant to one or more of the commonly used antibiotics—*narrows* the spectrum of side effects by avoiding many allergic reactions and changes in intestinal bacterial balance.

Available as Tao Capsules, 250 and 125 mg.; Tao Oral Suspension, 125 mg. per 5 cc.; Tao Pediatric Drops, 100 mg. per cc. of reconstituted liquid; Intramuscular or Intravenous as oleandomycin phosphate. Other Tao formulations also available: Tao®-AC (Tao, analgesic, antihistaminic compound) Tablets; Taomid® (Tao with Triple Sulfas) Tablets, Oral Suspension.

*Literature on request*

and for nutritional support **VITERRA®** vitamins and minerals
*Formulated from Pfizer's line of fine pharmaceutical products*

New York 17, N. Y., Division, Chas. Pfizer & Co., Inc.
*Science for the World's Well-Being™*

# JUNIOR BRANCH OFFICERS, 1960-1961

### Eva F. Dodge Junior Branch
### University of Arkansas

*President:* Betty Sue Bal' 7419 Illinois, Little Rock.
*Secretary-Treasurer:* Pat Livingston, University of Arkansas Medical Center, Little Rock.
*Sponsor:* Eva Dodge, M.D., University of Arkansas Medical Center, Little Rock.

### Baylor University

*President:* Audrey Posey, 2561 N. MacGregor Way, Apt. 36, Houston, Texas.
*Secretary-Treasurer:* Mary Propes, Texas Medical Center, Houston 25, Texas.
*Sponsor:* Ruth Hartgraves, M.D., 1208 The Medical Towers, Houston 25, Texas.

### Elizabeth Blackwell Junior Branch, University of Buffalo

*President:* Dolores Falcone, 9 Wadsworth St., Buffalo, N.Y.
*Secretary:* Marie deCorse, 299 Parkridge Ave., Buffalo, N.Y.
*Sponsor:* Lois J. Plummer, M.D., 263 Eden Avenue, Buffalo, N.Y.

### Chicago Medical Center

*President:* J. Joanne Hoover, 2712 N. Fairfield Ave., Chicago 47.
*Secretary:* Marie Cortelyou, 1908 W. Ogden, Chicago.
*Sponsor:* Elizabeth A. McGrew, M.D., 1853 W. Polk St., Chicago 12.

### Esther C. Marting Junior Branch, Cincinnati, Ohio

*President:* Jo Ann Heck, 503 Hale Ave., Cincinnati.
*Secretary:* Melba Merritt, 3305 Milton Ct., Cincinnati.
*Sponsor:* Esther C. Marting, M.D., 2314 Auburn Ave., Cincinnati.

### Florence Sabin Junior Branch, University of Colorado

*President:* Mrs. Helen Gerash, 638 Jasmine Way, Denver.
*Secretary:* Mrs. Sonia Ryan, 4200 E. Ninth Ave., Denver 20.
*Sponsor:* Virginia Lanier, M.D., 1750 E. 19th Ave., Denver 18.

### Medical College of Georgia

*President:* Roslyn Seligman, Medical College of Georgia, University Place, Augusta.
*Secretary:* Beverly Belk, 2104 Gardner St., Augusta.
*Sponsor:* Lou Woodward, M.D., 5-D Country Club Apts., Augusta.

### Hahnemann Medical College

*President:* Mrs. Joyce Katz, 4939 N. 12th St., Philadelphia 41.
*Sponsor:* Elizabeth B. Brown, M.D., 1930 Chestnut St., Philadelphia.

### Howard University

*President:* Anita Iona Austin, Howard University College of Medicine, Washington 1, D.C.
*Secretary:* Jackie Williams, Howard University College of Medicine, Washington 1, D.C.
*Sponsor:* Claire F. Ryder, M.D., M.P.H., Chronic Disease Program, U.S.P.H.S., Washington 25, D.C.

### University of Illinois

*President:* Nancy J. Gubisch, 5650 N. Richmond, Chicago.
*Secretary:* Judith L. Marsden, 818 S. Wolcott, Chicago.
*Sponsor:* Elizabeth A. McGrew, M.D., 1853 W. Polk, Chicago.

### University of Nebraska

*President:* Marilyn Stauber, 109 So. 32nd Ave., Omaha.
*Secretary:* Mona Bomgaars, Conkling Hall, University of Nebraska, College of Medicine, Omaha.
*Sponsor:* Mary Jo Henn, M.D., University of Nebraska, College of Medicine, 42nd and Dewey Ave., Omaha.

### Ohio State University

*President:* Gretchen Wagner, 242 S. Chesterfield, Columbus.
*Secretary:* Connie Burden, Box 65, Wopakonita, Ohio.
*Sponsor:* Helen P. Graves, M.D., 3821 Maize Rd., Columbus.

### University of Oregon

*President:* Rosemary Stevens, 3825 S.E. Ankeny, Portland.
*Secretary-Treasurer:* Joanne Jene, 6400 S.E. Lake Rd., Milwaukie.
*Sponsor:* Miriam Luten, M.D., 308 Taylor St. Bldg., 919 S.W. Taylor, Portland 5.

### University of Puerto Rico

*President:* Evelyn Cintron-Ruiz, Lopez Landron #1520, Santurce.
*Secretary:* Ina Rosa Serrano, Lopez Landron #1520, Santurce.
*Sponsor:* Dharma L. Vargas, Ave Gonzalez #1106, Rio Piedros.

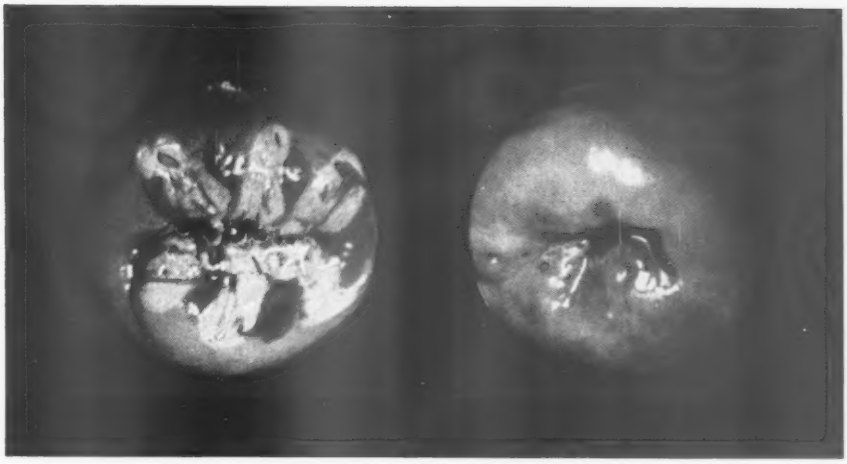
### St. Louis University School of Medicine

*President:* Marie R. Badaracco, St. Louis University School of Medicine, St. Louis 4.
*Sponsor:* Joan Goebel, M.D., 5128 Jamieson Ave., St. Louis 9.

### George Washington University

*President:* Benne Bendler, 1610 16th St., N.W., Washington, D.C.
*Secretary:* Anita Iff, 4448 Manchester Lane, N.W., Washington, D.C.
*Sponsor:* Elizabeth S. Kahler, M.D., 2600 36th St., N.W., Washington 7, D.C.

27
26 years of successful use without a diaphragm
COOPER CREME
No finer name in contraceptives
Whittaker Laboratories, Inc., Peekskill, N.Y.



For your OB-GYN patients:
fight infection,
facilitate healing

*Administered before and after cervicovaginal surgery, irradiation, delivery, and office procedures such as cauterization,* FURACIN *helps to provide a shorter, more comfortable convalescence. Infection is promptly controlled; discharge, irritation and malodor reduced; healing hastened.* FURACIN *is highly active in the presence of exudates, yet is nontoxic to regenerating tissue, does not induce significant bacterial resistance nor encourage monilial overgrowth.*

# FURACIN®

brand of nitrofurazone

## Vaginal Suppositories

FURACIN 0.3% in a water-miscible base which melts at body temperature. Box of 12, each 2 Gm. suppository hermetically sealed in yellow foil.

## Cream

FURACIN 0.2% in a fine cream base, water-miscible and self-emulsifying in body fluids. Tubes of 3 oz., with plastic plunger-type vaginal applicator.

THE NITROFURANS—
a *unique* class of antimicrobials
EATON LABORATORIES, NORWICH, NEW YORK

## INDEX TO ADVERTISERS


Abbott Laboratories .....269-270
Ayerst Laboratories .....318
Ciba .....268
Edward Dalton Co. ....261, 273, Back Cover
Eaton Laboratories .....277, 319, 321, 329
C. B. Fleet Co., Inc. .....284-285
Irwin, Neisler & Co. .....278
Lederle Laboratories .....274-275, 281
Eli Lilly & Company .....286
Lloyd Brothers, Inc. .....258, 267, 325
McNeil Laboratories, Inc. .....276, Inside Back Cover
The S. E. Massengill Company .....316-317
Mead Johnson .....271
Merck Sharp & Dohme .....263
Ortho Laboratories .....256
Parke, Davis & Company .....282-283
Pfizer Laboratories .....324
Riker Laboratories .....Inside Front Cover
Roche Laboratories .....254, 264-265
J. B. Roerig & Company .....326-327
G. D. Searle & Company .....253, 315
Upjohn Company .....260, 322
Whittaker Laboratories, Inc. .....328
Winthrop Laboratories .....259


## INDEX TO PRODUCTS ADVERTISED


ANALGESICS
Analexin *(Irwin, Neisler)* .....278
Darvon *(Lilly)* .....286

ANOREXIGENIC AGENTS
Bamadex *(Lederle)* .....274-275
Metrecal *(Dalton)* .....Back Cover

ANTACIDS
Creamlets *(Winthrop)* .....259
Titralac *(Riker)* .....Inside Front Cover

ANTIALLERGIC AGENTS
Forhistal *(Ciba)* .....268
Twiston *(McNeil)* .....Inside Back Cover

ANTIBACTERIAL AGENTS
Furacin *(Eaton)* .....329
Furoxone *(Eaton)* .....319, 321

ANTIBIOTICS
Maxipen *(Roerig)* .....326-327
TAO *(Roerig)* .....326-327

ANTIEMETICS
Bonine *(Pfizer)* .....324
Tigan *(Roche)* .....264-265

ANTIPRURITIC AGENTS
Forhistal *(Ciba)* .....268

ANTISPASMODIC SEDATIVES
Butibel *(McNeil)* .....276

BABY FOODS
Bib Juices *(Dalton)* .....273
Pablum *(Dalton)* .....261

CONTRACEPTIVES
Cooper Creme *(Whittaker)* .....328
Ortho-Creme *(Ortho)* .....256
Ortho-Gynol *(Ortho)* .....256

DERMAL DRYING AGENTS
Selsun *(Abbott)* .....269

DIETARY SUPPLEMENTS
Viterra *(Roerig)* .....327

DIURETICS
Cyclex *(Merck Sharp & Dohme)* .....263

ENEMAS
Fleet Enema *(Fleet)* .....284-285

HEMATINICS
Ferro-Sequels *(Lederle)* .....281
Iberol *(Abbott)* .....270
Roncovite-mf *(Lloyd)* .....325

HORMONES
Enovid *(Searle)* .....253
Erythropoietin *(Lloyd)* .....258
Norlutin *(Parke, Davis)* .....282-283
Orinase *(Upjohn)* .....260
Premarin *(Ayerst)* .....318
Provera *(Upjohn)* .....322

MYOVASCULAR RELAXANTS
Vasodilan *(Mead Johnson)* .....271

STOOL SOFTENERS
Ferro-Sequels *(Lederle)* .....281
Metamucil *(Searle)* .....315
Surfak *(Lloyd)* .....267

VAGINAL THERAPEUTICS
Trib *(Roche)* .....254
Massengill Powder *(Massengill)* .....316-317
Tricofuron *(Eaton)* .....277

*what* ***TWISTON*** *does for your allergy patient*

# TWISTON®

*rotoxamine*

## *takes him out of this class: zzzzzzzzzz zzzzzzzzzzzzzz zzzzzzzzzzzzzz*

## *puts him into this class: !!!!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!*

**TWISTON is "tailor-made" to keep your allergy patient alert. Twiston is unsurpassed for symptom control. Twiston is effective in *unusually* low dosage: has a prolonged duration of action—drowsiness rarely occurs. No toxicity reactions reported.**

**TWISTON**
**. . . anti-allergic**
**. . . anti-side effects**

**available as:**

**Tablets TWISTON, 2mg.**

**Tablets TWISTON R-A**
*(Repeat Action Tablets),* **4mg.**

U.S. PATENT PENDING

McNEIL *McNeil Laboratories, Inc., Philadelphia 32, Pa.*

continued clinical evidence
...of safe and successful results
in weight-control studies with

# Metrecal™

DIETARY FOR WEIGHT CONTROL

Clinical evidence[1-4] of the effectiveness and safety of Metrecal for weight reduction continues to accumulate. Excellent patient cooperation noted[1-4] has been attributed to the high satiety of Metrecal, its palatability, good tolerance, and simplicity in use. A series of case histories published in medical reports and brochure of a scientific exhibit are available on request.

*References:* (1) Roberts, H. J.: Am. J. Clin. Nutrition *8*:817-832 (Nov.-Dec.) 1960 [adapted in illustration]. (2) Tullis, I. F.: J. Mississippi M. A. *1*:636-638 (Dec.) 1960. (3) Antos, R. J.: Southwestern Med. *40*:695-697 (Nov.) 1959. (4) Tullis, I. F.; Allen, C. E., and Overman, R. R.: Simple Effective Weight Reduction: A Clinical Study, Scientific Exhibit, 6th Internat. Cong. Int. Med., Basel, Switzerland, Aug. 24-27, 1960.

Edward Dalton Co.
A DIVISION OF
MEAD JOHNSON & COMPANY
EVANSVILLE 12, INDIANA

*Quality products from nutritional research*

46261